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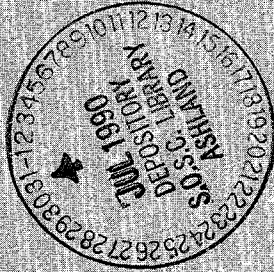
Forest Service

Pacific  
Northwest  
Region

1990

# Land and Resource Management Plan

## Rogue River National Forest



# **LAND AND RESOURCE MANAGEMENT PLAN**

## **ROGUE RIVER NATIONAL FOREST**

### **Pacific Northwest Region**

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#### **PREFACE**

This Forest Land and Resource Management Plan (Forest Plan) has been prepared according to Secretary of Agriculture regulations (36 CFR 219) which are based on the Forest and Rangeland Renewable Resources Planning Act (RPA) as amended by the National Forest Management Act of 1976 (NFMA). The plan has also been developed in accordance with regulations (40 CFR 1500) for implementing the National Environmental Policy Act of 1969 (NEPA). Because this plan is considered a major federal action significantly affecting the quality of the human environment, a detailed statement (Environmental Impact Statement) has been prepared as required by NEPA.

If any particular provision of this Forest Plan, or the application thereof to any person or circumstances, is found to be invalid, the remainder of the Forest Plan and the application of that provision to other persons or circumstances shall not be affected.

Additional information about the Plan is available from:

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# CHAPTER ONE

## **Forest Plan Introduction**

This chapter introduces the general purpose of the Forest Plan and the Plan structure, and explains how the Plan relates to the environmental impact statement and other documents.





# CHAPTER 1

## INTRODUCTION

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### **PURPOSE OF THE FOREST PLAN**

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The Forest Plan guides all natural resource management activities and establishes management Standards and Guidelines for the Rogue River National Forest. It describes resource management practices, levels of resource production and management, and the availability and suitability of lands for resource management. The Forest Plan establishes:

Forest-wide multiple-use goals and objectives;

Management Area direction including Management Area prescriptions (strategies) and Standards and Guidelines which apply to future management activities in that Management Area;

The allowable sale quantity for timber and identifies land suitable for timber management; and

Monitoring and evaluation requirements.

The Forest Plan embodies the provisions of the National Forest Management Act (NFMA) of 1976, the implementing regulations and other guiding documents. Land use determinations, Management Strategies, Standards and Guidelines together form a statement of the Plan's management direction; however, the projected outputs, services and rates of implementation are dependent on the annual budgeting process.

This Forest Plan will ordinarily be revised on a 10-year cycle, or at least every 15 years. The Forest Plan may also be revised whenever the Forest Supervisor determines that conditions or demands in the area covered by the Plan have changed significantly or when changes in Resource Planning Act policies, goals, or objectives would have a significant effect on Forest level programs.

### **RELATIONSHIP OF THE FOREST PLAN TO OTHER DOCUMENTS**

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#### **RELATIONSHIP TO THE ENVIRONMENTAL IMPACT STATEMENT AND RECORD OF DECISION**

This Forest Plan sets forth the direction for managing the resources of the Rogue River National Forest. The Plan results from extensive analysis and considerations that are addressed in the accompanying Environmental Impact Statement (EIS) and Record of Decision (ROD). The planning process and the analysis procedures that were used to develop this Plan are described or referenced in the EIS. The EIS also describes other alternatives considered in the planning process.

The Forest Plan establishes rules for making future decisions about the management of the Forest but it does not make most of these decisions. Specific activities and projects will be planned and implemented to carry out the direction in this Plan. Environmental analyses will be performed on these projects and activities. Project level environmental analysis will use the data and evaluations in the Plan and EIS as its basis. Project planning validates or adjusts Forest Plan estimates and determines actual outputs and management practices to ensure wise use of resources. Documentation of project level analysis will be tiered to the EIS accompanying this Forest Plan.

#### **RELATIONSHIP TO THE REGIONAL GUIDE**

The Regional Guide for the Pacific Northwest Region, as amended December 8, 1988, provides direction for National Forest plans. It includes Standards and Guidelines addressing major issues and management concerns considered at the Regional level to facilitate Forest Planning.

### RELATIONSHIP TO OTHER PLANS

The Forest Plan serves as the single land management plan for the Rogue River National Forest. All other land management plans are replaced by the direction given in this Forest Plan. The management direction provided by this Forest Plan comprises the framework within which project-specific planning and activities take place. (See Chapter 5, Implementation Direction, for more details.)

### PLAN STRUCTURE

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The Forest Plan document is composed of five chapters, a glossary and appendix material.

**Chapter 1** is the introduction which describes the purpose of the Forest Plan, summarizes the content, describes the Forest's geographic location, and discusses the Plan's relationship to other documents.

**Chapter 2** is a summary of the Analysis of the Management Situation (AMS). It briefly summarizes demand and supply potentials for each resource, a brief socioeconomic overview of the Forest and related communities and counties, potential supply for various resource goods and services, and a brief look at demand. Chapter 2 also includes a list of further research and information needs for the Forest.

**Chapter 3** summarizes the issues, concerns and opportunities, and it briefly explains how each was dealt with in the Forest Plan.

**Chapter 4** is the heart of the Plan and contains the multiple-use resource goals and the desired future condition which the Forest has established for the planning period. Accompanying these are the projected resource outputs and activities expected as the Plan is implemented to achieve the goals. The Resource Summaries in Chapter 4 further describe objectives for Plan implementation.

Also contained in Chapter 4 are Standards and Guidelines, descriptions of Management Areas, and definitions of types of activities that can occur within Management Areas. All of these are contained within the various Management Strategies. They apply to all on-the-ground projects and cover a wide

range of resources. Some are area-specific and others provide general procedures which can be followed. The locations of the various Management Areas within the Forest are shown on the map labeled "Land and Resource Management Plan" included in the map packet.

**Chapter 5** contains the implementation direction, a plan for monitoring and evaluation Forest Plan implementation, and a description for Plan amendment and revision. Project-level planning and scheduling are discussed. As the Forest Plan is implemented, it will be monitored to determine if the outputs and Standards and Guidelines in Chapter 4 are being met and if the Standards and Guidelines are effective in achieving the desired results.

Following Chapter 5 are the **Appendices** including detailed Ten-year Activity Schedules, Projected Budgets, Off-Road Vehicle Plan, Streamside Management and Best Management Practices, and Wilderness Implementation Plans.

### FOREST DESCRIPTION

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The Rogue River National Forest is about 632,000 acres in size and is located in southwestern Oregon and northwestern California in the mountain ranges surrounding the Upper Rogue and Applegate Valleys (see vicinity map). Portions of five counties are contained within the Forest: Jackson, Josephine, Douglas and Klamath Counties in Oregon, and Siskiyou County in California. Major cities in the area are Medford, Ashland and Grants Pass. Other cities include Eagle Point, Phoenix, Talent, Central Point, Shady Cove, Jacksonville, Rogue River, Prospect and Butte Falls. The main industries for the area are wood products, agriculture and tourism. Medford is the main service center for shopping and health services between Redding, California and Eugene, Oregon. Important tourist drawing attractions of the area are Crater Lake National Park, the Oregon Shakespearean Festival, the Mount Ashland Ski Area, the Britt Music Festival, the area's many lakes and the Rogue River. Regional coordination with private and other public agency land managers, e.g., Crater Lake National Park, is important to enhance scenery, wildlife, recreation and other values.

About two-thirds of the Forest is in the Cascade Range, and the other one-third is located in the



Siskiyou Mountains. The Western Cascades are moderately steep and rugged and the new or High Cascades are gently rolling high mountains with high volcanic peaks such as Mount McLoughlin and Union Peak. The Siskiyou Mountains are older, steep, rugged high mountains (such as Mount Ashland) with deep canyons.

Recreation opportunities abound on the Rogue River National Forest. There are highly developed campgrounds (such as Farewell Bend and Fish Lake) and resorts (Union Creek and Fish Lake). Rugged, natural-appearing scenery is common, and many miles of roads and trails are available for visitor use to appreciate this beauty. There are about 522 miles of trails. These vary from the Pacific Crest National Scenic Trail and two National Recreation Trails to trails that access currently undeveloped areas. Photography of the scenery and the many plants and animals is a favorite activity. Winter activities include the downhill skiing at Mt. Ashland, and use of many miles of snowmobile and cross country ski trails.

The Forest contains three newly-designated Wildernesses. The Sky Lakes Wilderness, with its high plateau area and more than 200 ponds and lakes, is a favorite of the local area. The Rogue-Umpqua Divide Wilderness features unique geologic formations, lakes and meadows rich in wildflowers, and an extensive trail system for visitor enjoyment. The Red Buttes Wilderness features a chain of mountain peaks along the Siskiyou Mountains' crest, including Red Buttes, Kangaroo Mountain and Rattlesnake Mountain, with elevations up to 6894 feet, and a number of unusual plant species, such as Brewer's spruce, Sadler oak and Lewisia.

The Forest is home for many species of wildlife and is an important provider of wildlife habitat. The

northern spotted owl, a species proposed for federal listing as threatened, is present on the Forest and requires old growth habitat to survive. The Rogue River National Forest provides habitat for two species which are federally listed as threatened or endangered: the Bald Eagle and Peregrine Falcon. Deer and elk are important to the local area as big game animals. Their summer and winter ranges occur on the Forest.

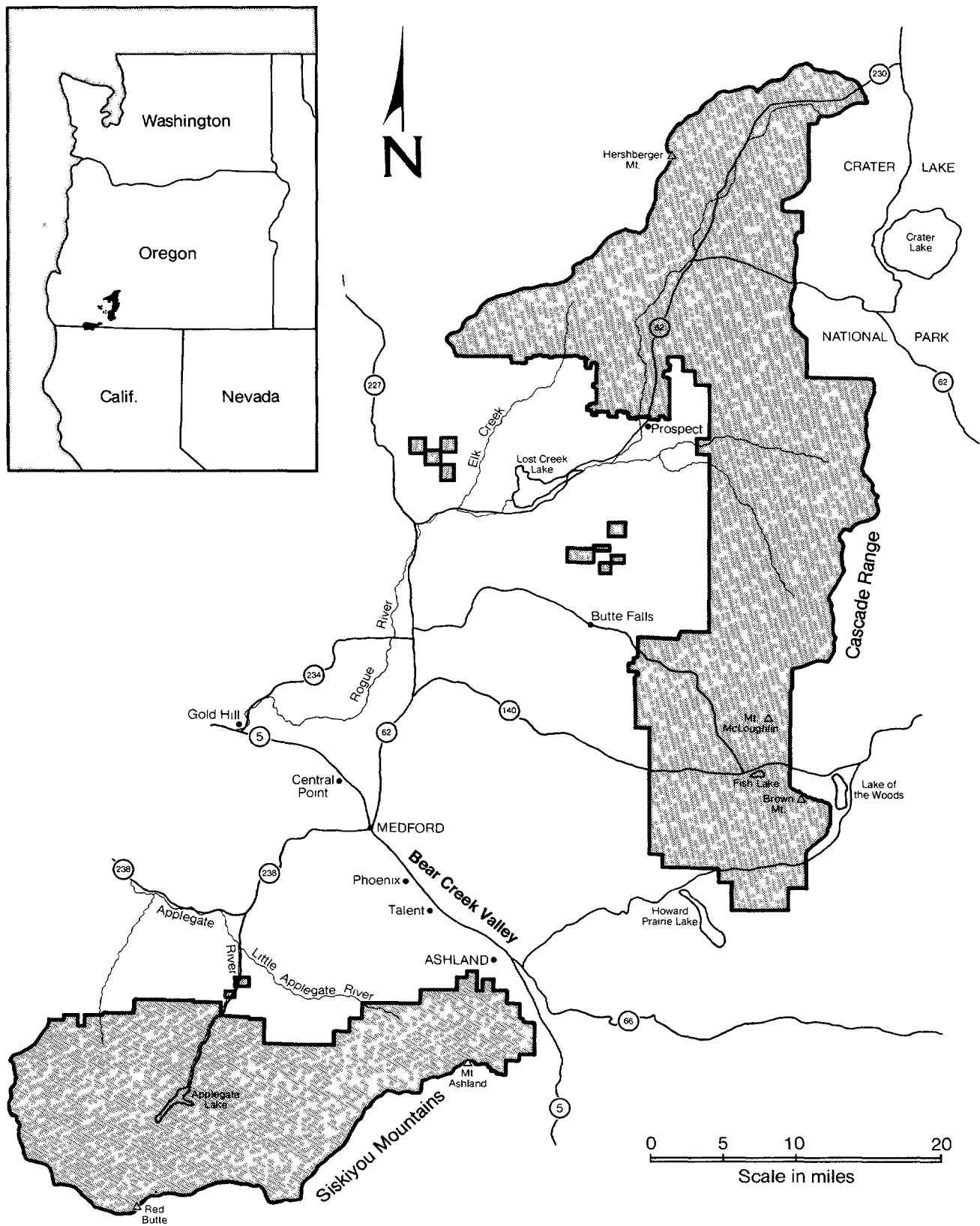
Native fish are present in most of the streams, and anadromous fish utilize those streams not blocked by the dams of the Rogue Basin Project. Water from the Forest is very important to downstream runs of steelhead and salmon.

No federally listed Threatened and Endangered plants are known to exist on the Forest. Numerous sensitive plants are known or are thought to be present. The Siskiyou Mountains provide habitat for many unique plant species. The area is popular with botanists from all over the United States and the world.

Timber from the Rogue River National Forest is a major part of the local timber supply. The principal tree species important for timber are Douglas-fir, with ponderosa pine, white fir and Shasta red (or noble) fir. Approximately two-thirds of the Forest has experienced some kind of timber harvesting activity. Almost 5,000 cattle graze on the Forest each year, and the Forest is an important supply of forage.

Three municipal supply watersheds occur on the Forest. Fresh, clean water is provided to the cities of Ashland, Medford and Talent. Other water from the Forest feeds the Rogue River and Applegate River systems.

LOCATION MAP



## CHAPTER TWO

# Summary of the Analysis of the Management Situation

This chapter of the Plan briefly summarizes the supply and demand conditions for significant market and nonmarket goods and services associated with the planning area.



## CHAPTER 2

# SUMMARY OF THE ANALYSIS OF THE MANAGEMENT SITUATION

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### INTRODUCTION

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This chapter briefly summarizes the Analysis of the Management Situation (AMS) prepared at the beginning of this planning process, the resulting demand projections, and the resource and economic supply potentials for the Rogue River National Forest. The principal issues being addressed are timber supply, recreation use, domestic supply watersheds, wildlife and riparian-fish habitat, use of unroaded areas, spotted owl and old-growth timber. Following the AMS discussion is a summary of the projected demand by users of the Forest for significant goods and services along with potential, current, and planned outputs. The second section in this chapter includes further information, inventory and research needs that have been identified for the Rogue River National Forest.

### ANALYSIS OF THE MANAGEMENT SITUATION

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The main purpose of the Analysis of the Management Situation (AMS) was to assess the conditions of the Forest, society's demands for the Forest's resources and the Forest's ability to produce outputs. More specifically, the purposes of the AMS were to:

Define the maximum potentials of the Forest to produce both economic benefits and resource output levels for market and non-market goods;

Evaluate the complementary and conflicting production relationships (trade-offs) between pertinent market and non-market goods which the Forest could provide to the public;

Analyze the relative efficiencies and implications of constraints used to satisfy legal, policy

and discretionary resource management requirements;

Identify the range within which alternatives could be developed; and

Help analyze the implications of continuing with current management direction, and if necessary, to identify a need for change.

### RESOURCE SUPPLY AND DEMAND PROJECTIONS

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The following pages summarize the current situation, supply, and demand conditions for the key Forest issues. The use of the word "current" in this chapter refers to that condition found in plans and policies prior to development of this Forest Plan.

#### TIMBER

##### Current Situation

Medford area wood processors averaged a demand of 107.2 MMCF (580 MMBF) of timber per year during the 1970's. In the early 1980's, demand slumped to about 77.8 MMCF (420 MMBF) per year.

Harvest from the Rogue River National Forest averaged 222 MMBF (approximately 41 MMCF) during the years 1987-1989 which reflect recent demand for raw material from the Forest.

These supply and demand estimates were done on Forest utilizing a number of information sources including a study by Al Fox (economist, USFS Pacific Northwest Regional Office), and the update of "Timber for Oregon's Tomorrow: An Analysis of Reason-

## SUMMARY OF THE ANALYSIS OF THE MANAGEMENT SITUATION

ably Possible Occurrences", Research Bulletin 19, Forest Research Laboratory, Corvallis Oregon.

### Supply

Only the Forest's potential to supply raw material is discussed. Table 1 shows projected Forest levels of supply for five decades by a maximum timber benchmark and two alternatives that were used in the EIS. The benchmark supply (290.4 MMCF per year) achieves the low end of anticipated demand for the first decade. Neither alternative meets first decade demand. None of the three projections meets the second decade demand.

### Demand

Demand for raw material by the Rogue Valley wood processors is estimated to vary from 925 to 999 MMCF during the next decade. This demand is slightly less than the 107.2 MMCF average annual level of the 1970's. The Forest's share of area demand is estimated to range from 261 to 335 MMCF for the first decade or about 26.1 to 33.5 MMCF on an average annual basis (see Table 2-1). Second decade demand on the Forest is projected to double that of the first decade. The second decade area demand is projected to increase to a range of 999 to 1072 MMCF. The Rogue River National Forest contribution to the area's supply does not appear to be sufficient to satisfy the low end of the anticipated demand in any of the next three decades.

## RECREATION USE

### Current Situation

The Rogue River National Forest provides recreation settings that vary from Congressionally-designated areas, such as Wilderness, to intensively managed forest environments. Overall, the Forest averages 530,000 Recreation Visitor Days (RVDs) annually, with the majority of the recreationists coming from Jackson County.

Dispersed recreation, which occurs outside of developed recreation sites such as campgrounds and picnic areas, accounts for 33 percent of the recreation use on the Forest.

All of the developed recreation use on the Forest occurs in the Roaded Natural and Rural Recreation Opportunity Spectrum settings.

The Forest currently has 522 miles of trails on the Forest, including stock trails. Of those, 135 miles are within designated Wildernesses. The primary use that occurs on the trails is shown below.

<u>Trail Use</u>	<u>Miles</u>
Hiker/Horse	305
Hiker Only	80
Motorized (motorcycle & ATV)	55
Snowmobile (not included in above total)	147
Nordic	37
Interpretive	2
Stock Driveway	43

### Supply

The Forest currently has a developed recreation capacity of 7,038 Persons At One Time (PAOTs). Since a large percentage of the Forest is in a roaded condition, the dispersed roaded recreation supply is more than adequate to meet future demand.

As of 1988, the Forest had approximately 52,000 acres of land outside of Wilderness that was available for Semi-primitive recreation. (See FEIS, Chapter III, Wilderness section for a discussion of supply and demand.) Most of this Semi-primitive recreation use occurs within the roadless areas on the Forest which totals approximately 72,000 acres. Due to the size and configuration of some of the roadless areas, not all are available for Semi-primitive recreation use.

### Demand

Recreation demand or projected supply, is based on the recently completed Oregon Outdoor Recreation Plan. Most recreation activities in the State are predicted to increase faster than the population growth. Activities that are expected to increase much more rapidly than population include day hiking, outdoor photography and wildlife viewing, and recreation vehicle camping. Activities associated with a semi-primitive setting are also expected to increase rapidly.

For developed recreation, the Forest has assumed an increase of two and a half percent per year in the



first decade and one percent for future decades. Even with that increase, by the fifth decade the Forest will be able to accommodate the anticipated demand of 547,000 Recreation Visitor Days (RVDs).

Dispersed recreation use in a roaded setting is expected to increase by approximately two percent per year over the next two decades and one percent in future decades. As stated earlier, given the development of the road system on the Rogue River National Forest, it is anticipated that the Forest will easily be able to meet the anticipated 263,000 RVDs of dispersed recreation in the fifth decade.

Projected use for Semi-primitive, or backcountry, dispersed recreation is expected to increase at a rate of approximately three percent per year in the first decade and one percent in future decades. Given the supply of this setting in future years, the demand is expected to exceed the supply by the end of the third decade.



## DOMESTIC SUPPLY WATERSHEDS

### Current Situation

Water from the Rogue River National Forest is used for municipal water supplies by three public purveyors. These are the cities of Medford, Ashland, and

Talent. These Cities supply treated water for over half of the population of Jackson County.

### Supply

Forest-wide, runoff from the Rogue River National Forest averages about 1.5 million acre-feet of water annually. In any given year, runoff may be greater or less than this amount depending on the amount of precipitation that occurs. Use of this water is controlled by the Oregon Water Resources Department and the California Water Resources Control Board which administer the water appropriation laws for their respective states. The supply of water will be maintained over time and is not affected by implementation of the Plan.

### Demand

Demand for municipal water is a function of the population and the number of hook-ups the cities allow. For each of the three municipal watersheds on the National Forest, the demand for water exceeds the average annual supply.

**Medford** - The City of Medford takes the entire flow from Big Butte Springs (about 26 million gallons per day) for use in the cities of Medford, Central Point, Eagle Point, Jacksonville, and several small water districts. This quantity of water is not sufficient to meet the demands of all of the City's customers and it supplements this source with water from the Rogue River during periods of time when demand exceeds the supply from Big Butte Springs.

**Ashland** - Ashland has a water right for most of the water in Ashland Creek. This amount is not sufficient to completely meet the City's needs throughout the year and it supplements water from this source with water from Talent Irrigation District, which draws water from interagency lands. Demand for water from Ashland Creek exceeds the supply on an annual basis.

**Talent** - The City of Talent gets its water from two sources-Bear Creek and Wagner Creek. The flow in Wagner Creek is supplemented by a diversion from McDonald Creek, which is in the Little Applegate River watershed. Water from the National Forest supplies approximately 25 percent of Talent's water supply needs.

## SUMMARY OF THE ANALYSIS OF THE MANAGEMENT SITUATION

### WILDLIFE HABITAT

#### Current Situation

The Forest is currently occupied by approximately 12,000 black-tailed deer and 900 elk. Model utilized to estimate population capabilities, indicate populations of approximately 49,000 cavity excavator pairs (woodpeckers other than the pileated woodpecker), 930 pileated woodpecker pairs, 250 pine marten pairs, and 69 northern spotted owl pairs. Note, the figures for all species except deer and elk are strictly outputs of habitat capability models and do not necessarily reflect population levels currently existing. Actual inventories of these species were not conducted before Plan implementation.

#### Supply

Forest-wide, the deer population is expected to rise about 15 percent per decade for the first two decades, then fall back to near current levels and stabilize by the end of the sixth decade.

Elk production capability should rise at about 10 percent per decade through the fifth decade, stabilizing at 50 to 60 percent above current levels. Actual production will lag by several years until all available habitat is occupied (i.e., the Siskiyou mountains portion of the Forest). Actual herd level increases of about 5 percent per year from the existing herd level of 900, can be expected until the actual population begins to approach the projected capability of about 2,000 to 2,200 elk in about 20 years.

Habitat capability for cavity excavators, other than the pileated woodpecker, will remain relatively stable or slightly rise through the fifth decade, because more snags will be designated to remain than in the past.

Pileated woodpecker and pine marten populations (and the mature habitat dependent species they represent), are expected to drop 10 to 20 percent in the first three to five decades, before returning to current or slightly greater levels in later decades.

Northern spotted owl populations and the older forest habitat dependent species they represent are expected to fall below current levels by 10 to 20 percent the first decade, 25 to 30 percent the sec-

ond decade, and about 40 percent the third decade. Following a period of relative stability in the fourth and fifth decades, population levels should rise and stabilize at 65 to 75 percent of current levels in the sixth and later decades.

#### Demand

Demand for deer and elk currently exceeds supply. Shortened and earlier hunting seasons, area road closures, and the lack of antlerless hunts (not requiring drawing for permits) all reflect the shortage of supply of elk. The deer supply is closer to meeting demand than the elk supply, but the lack of antlerless hunts reflects the lack of sufficient deer supply to meet the existing demand. It is estimated that demand will continue to exceed supply even as the supply increases in the case of elk. The projected increased recreation demands for non-big game species stated below also should apply to deer and elk, although they are probably severely understated.

Demand for non-game and small game animals on Forest is projected to increase at an equivalent rate to the unroaded recreation demand. That is, the demand will increase approximately 10 percent the first decade, then increase at about a 5 percent per decade rate thereafter.

### RIPARIAN FISH-HABITAT

#### Current Situation

Riparian areas on the Forest include streamside areas along perennial streams, lakeside areas, wet meadows, alder glades and floodplains. There are about 1,150 miles of perennial streams on the Forest. Vegetation along most of these consists of coniferous forest. Vegetation within the wet meadows and alder glades is considered non-forested.

Most of the riparian areas are in good condition and provide excellent habitat for terrestrial and aquatic wildlife species. In many areas, riparian zones provide the only cover for terrestrial wildlife species.

Riparian areas are also excellent places for recreation. Recreation activities such as camping, hiking and fishing take place within the riparian areas on the Forest.

## SUMMARY OF THE ANALYSIS OF THE MANAGEMENT SITUATION

### Supply

The supply of riparian habitat consists of lands within 100 feet of all perennial streams (Class I, II and III) and lakes, all wet meadows and alder glades as mapped in the current Soil Resource Inventory, and all identified floodplains. Identified areas for riparian management total 19,500 acres. Additional riparian areas are included in areas being managed for more restrictive resources.

### Demand

Riparian areas provide some of the best wildlife habitat available. Impacts from timber harvesting on land adjacent to riparian areas has increased the demand for riparian areas. The demand for riparian conditions exceeds the current supply. This situation will exist for sometime into the future until a better balance in habitat conditions exists throughout the Forest.

Recreation demand for riparian areas will exceed supply.

## USE OF UNROADED AREAS

### Current Situation

Those unroaded areas remaining after three areas were added to Crater Lake National Park in 1980 and three Wildernesses were established in 1984, are to be considered and analyzed during the current planning process.

### Supply

Nine unroaded areas, totaling 81,228 acres, exist on the Forest. The areas and acreages are:

<u>Area</u>	<u>Acres</u>
Rogue - Umpqua Divide	6,651
Sherwood	6,994
Bitter Lick	6,605
Brown Mountain	6,667
McDonald Peak	9,446
Little Grayback	7,949
Kinney	7,483

Kangaroo  
Condrey Mountain

20,370  
9,063

### Demand

There is demand for unroaded resource for the sake of just being unroaded or undeveloped. This is because of the resources (such as old growth and Semi-primitive recreation) which do best in an unroaded environment. Also, there is demand for the resources that are best realized when the areas are developed such as timber and dispersed motorized recreation.

## SPOTTED OWL

### Current Situation

At present there are estimated to be over 100 pairs of northern spotted owls on the Forest. There are approximately 157,000 acres of fully suitable owl habitat on the Forest composed of multi-layered forest stands. Of this, approximately 30,000 acres are reserved from timber harvest within Wildernesses and Research Natural Areas.

### Supply

In addition, there are 25 Spotted Owl Habitat Areas (SOHAs) located on the Forest. Six (6), of about 1000 acres each, on the Applegate District; 3, of about 1000 acres each, within the Ashland Creek Watershed; 3, of about 1,500 acres each, and 1 of about 1000 acres, on the remainder of the Ashland District; 4, of about 1,500 acres each on the Butte Falls District and 6, of about 1,500 acres each, and 2, of about 450 acres each, on the Prospect District.

### Demand

There is demand to retain a viable, well-distributed population of northern spotted owls.

## OLD GROWTH

### Current Situation

Timber harvesting has significantly reduced the amount of old growth on the Forest to 98,617 acres. Old growth areas are a valuable component of the Forest, providing habitat for many wildlife species.

## SUMMARY OF THE ANALYSIS OF THE MANAGEMENT SITUATION

They also provide cover for big game, provide attractive scenery, help provide diversity and are a tree gene pool source.

### Supply

The Forest Plan would reduce the available old growth to 81,852 by the end of the first decade and to 64,101 by the end of the fifth decade. (See Table 3-1.)

<u>Distribution of Old Growth</u>	<u>Acres</u>
Withdrawn (RNAs, Wild River, Wilderness)	22,044
Unsuitable Timber Land	16,701
Tentatively Suitable in:	
Management Areas with no programmed harvest	20,286
Management Areas with programmed harvest	<u>39,586</u>
Total:	98,617

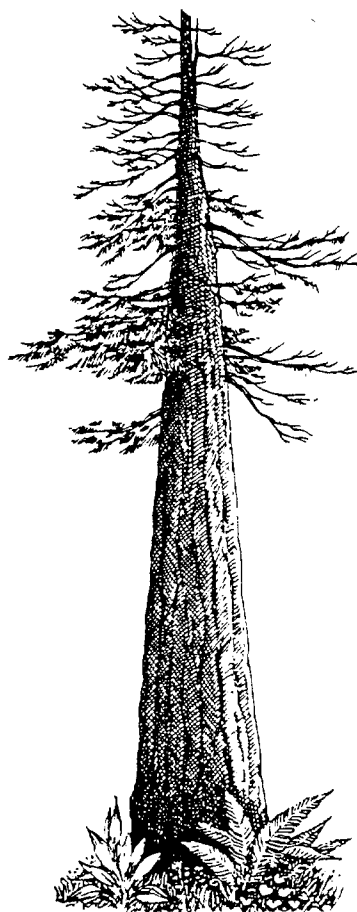
Under this Plan, 59,031 acres of old growth would have no timber removed due to being unsuitable, withdrawn or allocated to a Management Area with no programmed timber harvest. Of the remaining 39,586 acres, 10,534 will be managed within a partial-yield Management Area.

Table 2-1 displays the amount of old-growth that is projected to be present in the future on the Forest

under different alternatives. Some important assumptions guided the projections. The figures displayed reflect what happens to currently existing old-growth. No additional acres were added to compensate for the currently mature forest stands that may become old-growth in the next five decades. This will almost certainly occur on management areas that do not have programmed timber harvest. Also, no acres were subtracted to compensate for potential losses of old-growth stands to catastrophic wildfire, or insect and disease outbreaks (all of which are likely occurrences in the decade).

### Demand

Total demand for old growth cannot be quantified. There is demand for retention of old growth as wildlife habitat, for aesthetics, and as a reservoir of biological diversity. There is also demand for old growth as a source of timber for harvest. Demand for old growth is expected to exceed supply throughout the foreseeable future.



# SUMMARY OF THE ANALYSIS OF THE MANAGEMENT SITUATION

Table 2-1  
SUMMARY OF PROJECTED SUPPLY AND ANTICIPATED DEMAND

	Decade						
Key Forest Issues	Unit	1	2	3	4	5	Information Source
<b>TIMBER</b> <b>(ALLOWABLE SALE QUANTITY)</b>	Decade MMCF/Yr						
No Action		24.89	26.47	26.47	26.64	26.64	Alternative A
Maximum Production		29.04	29.12	29.12	29.12	29.12	Alternative B
Forest Plan		222.2	23.69	23.69	23.69	23.69	Alternative K
Projected Demand		26.1/ 33.5	53.3/ 60.6	25.7/ 33.0	no est	no est	
<b>RECREATION DEVELOPED</b>	MRVD /Yr.						
No Action		368	368	368	368	368	Alternative A
Maximum Production		405	442	479	516	552	Alternative B
Forest Plan		405	442	479	516	552	Alternative K
Projected Demand		369	407	449	496	547	
<b>RECREATION DISPERSED ROADED</b>	MRVD /Yr						
No Action		1596	1596	1596	1596	1596	Alternative A
Maximum Production		1611	1611	1611	1611	1611	Alternative G
Forest Plan		1533	1533	1533	1533	1533	Alternative K
Projected Demand		1610	1960	2160	2380	2630	
<b>RECREATION SEMI-PRIMITIVE (Outside of Wilderness)</b>	MRVD /Yr						
No ACTION		23	7	7	7	7	Alternative A
Maximum Production		53	53	53	53	53	Alternative G
Forest Plan		23	19	19	19	19	Alternative K
Projected Demand		13	17	18	20	22	
<b>DOMESTIC SUPPLY WATERSHED</b> No Alternative or actions described in the FEIS or in this Plan will interfere with any of the cities' abilities to obtain the supplies they need from these watersheds.							
<b>WILDLIFE HABITAT ELK</b>	HCI						
No Action		1582	1413	1245	1076	908	Alternative A
Maximum Production		1963	2176	2389	2602	2703	Alternative K
Forest Plan		1963	2176	2389	2602	2703	Alternative K
Projected Demand		1.3% Annual Increase					
<b>WILDLIFE HABITAT DEER</b>	HCI						
No Action		13950	12700	11450	10200	8950	Alternative A
Maximum Production		17709	20218	17500	18119	16677	Alternative K
Forest Plan		17709	20218	17500	18119	16677	Alternative K
Anticipated Demand		1.3% Annual Increase					
<b>RIPARIAN FISH HABITAT</b> This Plan will ensure delivery of high quality, clean water. All alternatives described in the FEIS also ensured protection of riparian and fish habitat.							
<b>UNROADED AREAS</b>	No. of Areas						
No Action		3	2	2	2	2	Alternative A
Maximum Production		9	9	9	9	9	Alternative G
Forest Plan		5	5	5	5	5	Alternative K
Projected Demand							
<b>SPOTTED OWLS</b>	HCI 1/						
No Action		58	48	38	44	39	Alternative A
Maximum		67	68	68	74	75	Alternative G
Forest Plan		60	52	43	48	45	Alternative K
Projected Demand							
<b>OLD-GROWTH TIMBER</b>	M Acres						
No Action		74.8	66.8	57.8	55.9	54.9	Alternative A
Maximum Retention		98.6	98.6	98.6	98.6	98.6	Alternative G
Forest Plan		81.9	74.9	67.1	65.1	64.1	Alternative K
Projected Demand		Exceeds Supply					

1/ HCI = Habitat Capability Index

Note: Information source for supply and demand figures are from the Alternatives in the Environmental Impact Statement for this Plan.

Values for wildlife habitat are those expected to occur by the end of each respective decade.

## INFORMATION NEEDS

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This section lists the information, inventory, and research needs that have been identified for the Rogue River National Forest. This recognizes additional data or scientific knowledge that would be desirable to have prior to preparation of the next Forest Land and Resource Management Plan. The concept used to organize and develop these needs recognizes that biological, physical, and social ecosystems are the foundation for the planning process. This list may expand as additional needs are identified through monitoring and evaluation. Some items may be found to be impractical or infeasible to obtain for the next round of planning and be more appropriately investigated through long-term research on a Regional basis:

Better understand forest health and resilience and how management activities can be carried out while maintaining the health and vigor of the forest ecosystem.

More thoroughly understand the effects of forest management activities on the natural environment including: long-term site productivity rate of landslides, water quality, wildlife and fish populations. Forest management activities would include at a minimum site-disturbing activities, silvicultural applications, wood residue management, and snag retention.

Define more clearly plant associations and their productive potential.

Determine the desired amount and distribution of seral stages to be maintained within each of the Forest's plant associations. Continue to explore how the Forest should best manage for biological diversity.

Re-analyze fishery economics for southwest Oregon.

Conduct more research to further define the amount of habitat needed by cavity nesters.

Further refine the recreation demand for, and use of, non-game wildlife on the Forest.

Gather more information on elk populations and elk habitat needs, especially on the Elk Creek band and on the isolated bands on the north end of the Forest.

Further examine deer/elk and livestock competition for forage on winter range to determine effects of present management activities on deer and elk habitat.

Coordinate the Forest's cultural resource data base with the Oregon and California SHPO'S to determine the specific relationships of the Forest properties to the Regional Research Design.

Update the Forest Cultural Resource Inventory Strategy through comparison of known site distributions to the probability model.

Conduct archaeological site testing on a representative sample of all the Forest's prehistoric sites.

Gather more information on the Cow Creek Tribe's hunting and fishing needs. The Forest should also determine what wildlife and fish species are important to the Tribe's cultural needs.

Update the Forest Cultural Resource Overview through the addition of new inventory data and new information gathered as a result of archaeological and historical research conducted on the Forest.

Examine effects of uneven-aged timber management on wildlife habitat.

More precisely determine habitat requirements (localized for the Rogue River National Forest) of management indicator species which depend on direct land allocations: pileated woodpeckers, pine marten, and spotted owls. The habitat area required per breeding unit needs to be better determined; habitat suitability indexes need to be developed.

Further define the relationships between surface management activities and quality and quantity of ground water, especially as it pertains to the Medford watershed.



Develop additional and innovative monitoring methods which are sensitive and efficient for sampling water quality.

Conduct inventory's of riparian and stream conditions for all Class I, II and III streams.

Develop a sediment model for the Forest for more accurate erosion predictions.

Further determine the effects of all land management activities on threatened, endangered and sensitive plant and animal species.

Inventory and better define habitat, environmental and propagational requirements of sensitive plants and animals which are present on the Forest.

Gather baseline inventory of species and communities in Research Natural and Botanical Areas.

Conduct a noxious weed inventory; identify and classify weeds and measure levels of infestation. Develop a feasible and economical means of noxious weed control.

Determine how to best meet user needs and expectations through a Forest Marketing Plan.

Determine where off-road vehicle use is occurring and what impact it is having on other resources.

Conduct scientific baseline studies for soil, water, air, vegetation, wildlife, cultural resources, and human impact specific to Wilderness.

Determine the Limits of Acceptable Change (LAC) for the Sky Lakes, Red Buttes Wildernesses, Rogue-Umpqua Divide, and other significant dispersed recreation places on the Forest.

Update the Forest soil resource inventory.

Improve understanding of interaction of soil, seedlings and environment as it affects reforestation and site productivity.

Explore and document mechanisms for managing soil organisms and the importance of these

organisms to ecosystem development and stability, and long-term productivity.

Increase knowledge of the physical, chemical and biological properties of the soil.

Continue updating knowledge relating to soil fertility and fertilization, plant-nutrient relationships, and pumice soils.

The southern Oregon interagencies need to:

- Obtain more data on the impacts of smoke emissions from prescribed burning on air quality and visibility in the Rogue Valley.
- Quantify the economics of fire fighting, fuel hazards, and risks commensurate with resource values.
- Explore viable markets in or out of the Valley for fuels residue as an alternative to burning.
- Continue to increase knowledge regarding the effects of fire on the ecosystems within Southwest Oregon.

Further identify the effects of prescribed fire on old-growth habitat components.

Determine the amount that thinning of older natural stands extends the culmination of mean annual increment.

Develop timber growth and yield functions specific to the working circles on the Rogue River National Forest. Also:

- Develop methods to incorporate the different silvicultural options used into the forest yield tables, e.g., pine plantations in frost pockets.
- Determine effects on timber yield of wildlife guidelines, including seed tree practices and Big Game Winter Range allocations.
- Determine locally the effects in yield from commercial thinning and from fertilization.

## SUMMARY OF THE ANALYSIS OF THE MANAGEMENT SITUATION

- Determine the effects in yield from various levels of managing competing vegetation.
- Determine growth rates to age 35 for the various tree species on the forest when in a managed condition.

Continue to explore site preparation methods for reforestation other than the use of fire.

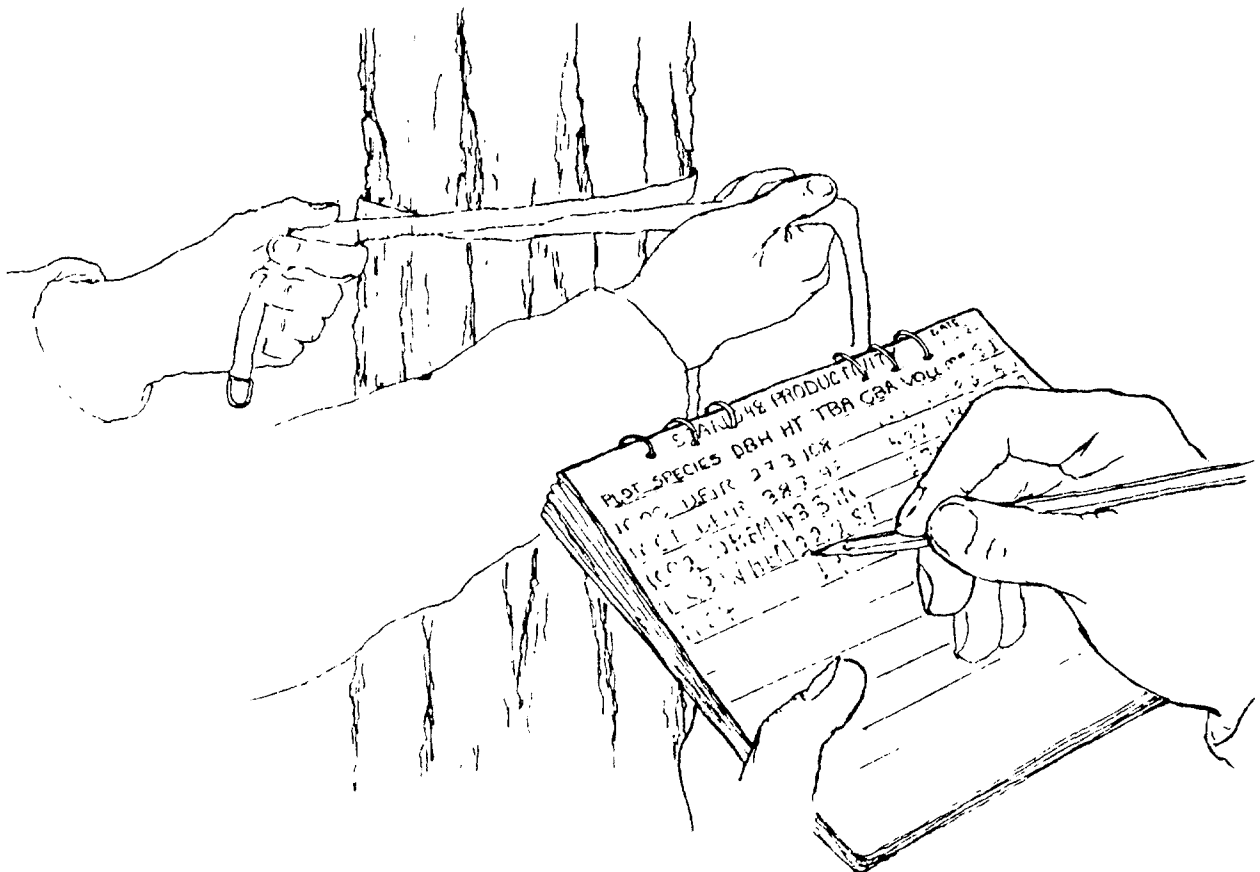
Expand acceptable methods of managing lands now classified as: (1) unsuitable due to potential irreversible resource damage, (2) not reforestable within five years, and (3) not regenerable in ten years utilizing natural systems.

Better identify the mineral potential of the Forest.

Gather localized data on stands managed with uneven-aged management methods in order to develop yield tables.

Compile regeneration history on acres previously regeneration harvested that are currently classified as unsuitable.

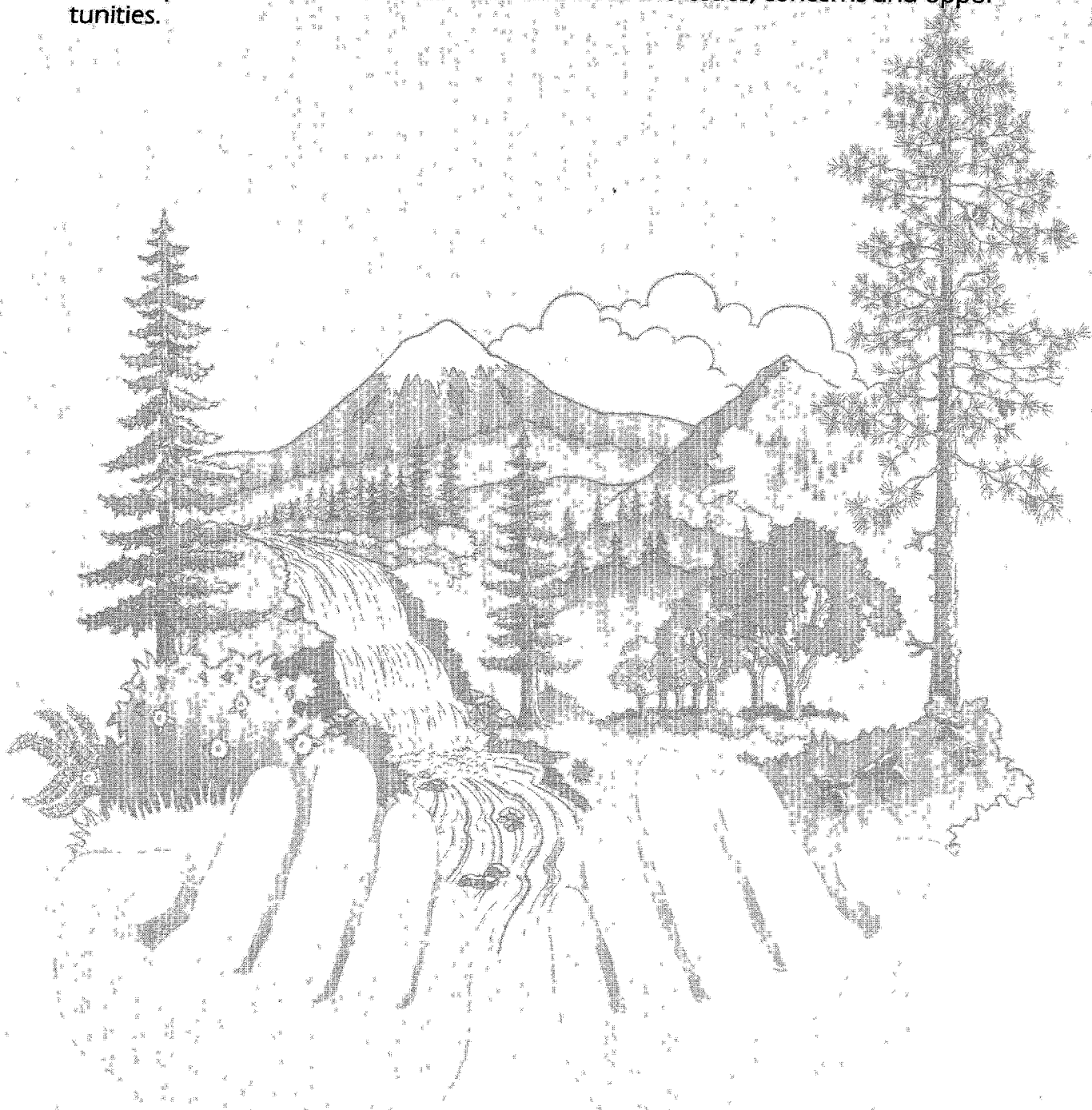
Initiate partnership with research groups to test regeneration techniques on new harvest areas presently classified as unsuitable.



## CHAPTER THREE

# Response to Issues, Concerns and Opportunities

This chapter discusses the Forest Plan solution to the issues, concerns and opportunities.



## CHAPTER 3

# RESPONSE TO ISSUES, CONCERNS AND OPPORTUNITIES

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### OVERVIEW

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A major step in the development of this Plan was the identification of issues and concerns related to management of the Forest. Through a scoping process, nine major issues were identified. After reviewing public comment on the Draft Environmental Impact Statement (DEIS) for the Land and Resource Management Plan for the Rogue River National Forest (Forest Plan), two issues were dropped and one was added. The "Use of the Most Productive Timber Lands" issue was dropped due to lack of public response on this issue in the DEIS. The "Wild and Scenic River status for the Upper Rogue River" was dropped due to legislation that determined the River's status. Added, was the issue, "Management of the Northern Spotted Owl," to separate it from the "Old-Growth" issue. In this section these issues are summarized and a brief description of their disposition in the Forest Plan is provided. (See Chapter I and Appendix A of the Final Environmental Impact Statement (FEIS) for a more detailed description of the issues and concerns.) The major issues are listed as follows:

1. Timber Harvest Level
2. Recreational Opportunities
3. Domestic Supply Watersheds
4. Wildlife Habitat
5. Riparian - Fish Habitat
6. Use of Unroaded Areas
7. Old-Growth
8. Spotted Owl

#### 1. TIMBER HARVEST LEVEL

The issue is "How much timber should be grown and harvested on the Rogue River National Forest?" Under the previous Timber Resource Plan (1978),

the annual sale quantity of green sawtimber was 205 MMBF. As briefly described in Chapter 2 and in Appendix B of the FEIS which accompanies this Plan, the 205 MMBF level could not be maintained according to new planning data and direction. This Plan provides for an allowable sale quantity (ASQ) of 22.2 MMCF (119.8 MMBF) during the first decade, representing a decrease of 16.1 MMCF (84 MMBF), a 41 percent change.

The Preferred Alternative in the Draft EIS indicated a change of 30% as ASQ fell to 26.3 MMCF (137 MMBF). Changes have occurred from Draft to Final as the issue of timber harvest level was re-examined, data were re-analyzed, and in some cases new data were collected in response to the issue of timber harvest level. The 1980 Timber Inventory, as used for the Draft EIS, necessitated significant changes to the Timber Resource Plan. Land capability, timber suitability, and other updated resource information combined to constrain potential cut levels.

In the Draft Environmental Impact Statement, there were 407,000 acres classed as tentatively suitable timber land. Through a re-examination of timber suitability, which included a review by a special panel of agency personnel and interested members of the public, a net change resulted in which tentatively timber suitable acres were reduced to 391,000 acres in the FEIS. Of those tentatively suitable acres, there are 315,000 timber suitable acres allocated to timber production. The remaining 76,000 acres of tentatively timber suitable acres are split between acres needed for management requirements (28,000), acres needed to meet other multiple use objectives (37,000), and lands unsuitable due to economic inefficiency (11,000).

Besides suitability changes between Draft and Final, other changes have contributed to the change

in ASQ as comments to the Draft were considered and incorporated into the Final:

Allocation changes in Spotted Owl Habitat Areas, Special Interest Areas, Botanical Areas and Research Natural Areas have reduced available acres;

Condition classes were remapped, taking into account the harvest activities between 1980 and 1989, thus reducing the amount of timber inventory available;

As new information became available, yield tables were reworked to better reflect actual yield opportunities and growth since the initial inventory was taken. The net effect of the changes is a reduction in expected first decade yield. Contributing to an ASQ reduction are changes in: gross to net adjustments, expected genetic gain, operational falldown, use of the revised regeneration lag period;

The harvest dispersion constraint was revised to better reflect existing conditions and is more constraining than in the Draft Environmental Impact Statement;

The removal of overstory trees from shelterwood situations, where frost damage to seedlings is a high risk, will be delayed, reducing available timber in this decade; and

The acres allocated to the Big Game Winter Range Management Area have been increased.

## 2. RECREATIONAL OPPORTUNITIES

The major issue is how the Forest will manage for quality dispersed and developed recreation opportunities.

This Plan provides about 121,000 acres of Primitive and Semi-primitive recreation opportunities. Approximately 92,000 acres of this is within the three Wildernesses on the Forest. Areas providing Semi-primitive opportunities outside of Wilderness include: Sherwood Butte area, Brown Mountain, Condrey Mountain, the Cook and Green area east of the Red Buttes Wilderness, the McDonald Peak area, and the Craggy Mountain to Grayback Mountain area.

The Forest will continue to provide roaded recreation opportunities that are far in excess of the projected demand. In order to meet projected needs, approximately 15 developed recreation sites are planned to be upgraded and approximately 100 miles of trails are planned for construction and/or reconstruction in the next ten years.

There are about 24,000 acres of Special Interest Areas (SIAs) and 5,900 acres of Botanical Areas in this Plan. Included as SIAs are the Siskiyou Crest, Union Creek Historic District, Highway 62 Corridor, Hershberger Mountain, Rabbit Ears, Skeeter Swamp, and Grizzly Canyon.

The upper Rogue River has been designated for Wild and Scenic River. Approximately 6.3 miles will be managed as Wild and 34.0 miles will be managed as Scenic.

Many areas have been designated to receive special management to protect the visual resource. They include State Highways 62, 230, 140; County roads Dead Indian Road and Upper Applegate Road; Forest Service roads Butte Falls-Fish Lake Road, Big Elk Road, Beaver Creek Road, a portion of the Carberry/Thompson Creek Road; and Middle Fork Applegate Trail. Also included are viewsheds surrounding the City of Ashland, Applegate Lake, Squaw Lakes, the South Fork of the Rogue River and the Pacific Crest National Scenic Trail.

This Plan also recognizes the importance of the Crater Lake National Park Rim Drive. Much of the land seen from the Drive will be managed with either no timber harvest or reduced timber harvest.

## 3. DOMESTIC SUPPLY WATERSHEDS

The major issue surrounding municipal watersheds involves the ability to ensure an adequate supply of high quality water. There are three municipal supply watersheds on the Rogue River National Forest - Ashland Creek Watershed, Big Butte Springs Watershed, and the area tributary to the Talent Irrigation District in the Little Applegate and Wagner Creek watersheds. These watersheds have largely been allocated to the Restricted Watershed and Managed Watershed Areas, as necessary to protect watershed values. In order to provide for the best use of resources, portions of the watersheds have been allocated to other Management Areas such as

Developed Recreation or Research Natural Area. In these instances the requirements of managing a municipal supply watershed will be met.

Most of the the Ashland Creek Watershed is managed as Management Area 22 - Restricted Watershed because of the sensitivity of the area. The primary concerns are sedimentation and water contamination. The Restricted Watershed Management Strategy limits activities such as camping, grazing, the use of chemicals and timber management. The watershed is not part of the timber base and regular timber harvest is not scheduled. Activities can occur where water quality can be protected and/or they are necessary to maintain and protect water quality values. All projects will be designed to protect water quality. A small portion of the watershed containing the Mt. Ashland Ski Area is allocated to Management Area 4 - Developed Recreation. The possibility of expansion of the ski area is recognized. A portion of the watershed is allocated to Research Natural Area which is more restrictive in its Strategy than that of Restricted Watershed. (For discussion of the "hierarchy" of restrictions of Management Strategies, see Chapter 4, Management Areas and Management Strategies section.)

The Big Butte Springs Watershed is managed as Management Strategy 23 - Managed Watershed. The major concern is groundwater contamination. This results in limitations in camping, waste-water treatment alternatives, energy developments and the use of chemicals. The Managed Watershed Strategy has a scheduled timber harvest. Portions of the watershed are allocated to various other Areas such as Foreground Retention - 6 (as viewed from Forest Road 37), and Big Game Winter Range -14, where they are more restrictive or have a lower timber yield. All projects will be designed to protect water quality.

The portions of the Little Applegate Creek and Wagner Creek drainages which are tributary to the Talent Irrigation District ditch are allocated to Management Area 23 - Managed Watersheds. The major concerns in these watersheds are sediment and other water contaminants. This results in limitations in camping, waste water treatment alternatives and the use of chemicals. The Managed Watershed Strategy has a scheduled timber harvest. Portions of the watershed are allocated to various other Management Areas such as Special Interest Areas (along the Siskiyou Crest) where they are more re-

strictive or have a lower timber yield. All projects will be designed to protect water quality.

#### 4. WILDLIFE HABITAT

The issue of wildlife habitat is centered on the effect of timber harvest on cover/forage habitat, migration routes, and biological diversity. The Plan allocates 67,700 acres to winter range management. In future decades deer winter range carrying capacity would improve as management objectives for deer winter range needs are implemented. The improvements should result in a capability to support up to 16,700 deer, which is 10 percent above the Oregon Department of Fish and Wildlife (ODFW) benchmark level of 15,200 deer.

Management of winter range under guidelines established in the Plan would also improve the carrying capacity for elk through time. By the end of the second decade, winter range would not be a limiting factor on the Forest's potential elk population. Improved winter range conditions and a better balance in winter and summer range could result in a capability to support up to 2,700 elk on the Forest (1.6 times the ODFW benchmark levels of 1,750 animals) within five or six decades. Other environmental factors such as predation, disease, or poaching, would probably be more limiting on elk production at that time.

For animals dependent upon older forest stand habitat conditions, the Plan will reduce the amount of that type of habitat. This will be mainly due to harvesting of stands of trees in the 100 to 200 year-old age categories.

Implementation of the Standards and Guidelines in the Strategies will provide adequate protection for all known Peregrine falcon and bald eagle sites.

Woodpecker populations, as based on mixes of forest habitat types, will remain relatively constant through the fourth decade and then would increase to 110 percent of populations existing previous to the Forest Plan in the fifth decade. Pileated woodpeckers, during the same time periods, would stay the same through the first decade and then decline until levels are 17 to 18 percent below populations at Plan implementation by the end of the fourth decade. An increase in the fifth decade will bring



populations up to 93 percent of capability at the time of Plan implementation.

## 5. RIPARIAN - FISH HABITAT

The prime issue is production of clear, cold, high-quality water from the Forest and how much stream-side protection should be provided to protect the quality of water and fisheries. Response to the DEIS favored a no harvest strategy adjacent to bodies of water.

All lakes, perennial streams, and wetlands have been assigned to Management Area 26 - Restricted Riparian, or to others that provide **at least** as much protection as that Strategy. Riparian habitats are defined as at least 100 feet on each side of a stream, or to the edge of the riparian habitat if it is farther than 100 feet. Other Management Areas that provide protection equal to that in Management Area 26 are Management Areas 3 - Backcountry Non-motorized, 5 - Special Interest Area, and 15 - Old Growth.

This Plan will result in keeping more than 80 percent of the shade along streams and shorelines and maintain the habitat integrity. It will insure a continued supply of cold, clear water for downstream fisheries and quality fish habitat on the Forest. Additionally, the Restricted Riparian Strategy will provide essential habitat for terrestrial wildlife in many areas that have been previously impacted by harvest activities. These riparian strips provide needed travel corridors for animals and birds between other more expansive habitat areas.

## 6. USE OF UNROADED AREAS

This issue centers on how management activities affect unroaded areas. Roads are planned in por-

tions of all nine roadless areas in the long term. Within the first decade, there will be enough construction of roads in Bitter Lick, Kinney, Little Grayback, and Rogue-Umpqua Divide areas so that these areas would lose their roadless remote character. (For more detail regarding the previously unroaded areas and specific allocations for each, see Chapter 4, Resource Summaries, Recreation section and Appendix C of the FEIS.)

Brown Mountain area will have a bicycle path planned for sometime in the first two decades. The bulk of the area, about 6,000 acres, would remain unroaded and be managed for Old-Growth and Backcountry Non-motorized recreation. (Oversnow vehicles will be permitted during winter season only.)

Condrey Mountain unroaded area has some roads and timber harvest activities planned in the first decade. About 6,500 acres would remain unroaded and be managed as Botanical and Special Interest Areas.

Kangaroo area will have about 10,000 acres that remain unroaded and be managed as Special Interest Area, Botanical Area, Research Natural Area, Backcountry Non-motorized, and Spotted Owl Area.

The McDonald Peak area will have 6,900 acres that remain unroaded. This area will be managed as Restricted Watershed, Special Interest Area, and Botanical Area.

Sherwood unroaded area has no road construction scheduled in the first two decades leaving the entire 7,000 acres unroaded and managed as Backcountry Non-motorized and a Research Natural Area.

## 7. OLD-GROWTH

The issue is whether or not to continue harvesting old-growth stands, and if harvesting continues, what amount of old growth remains after Forest Plan implementation. Table 3-1 displays old growth remaining on the Forest after Plan implementation. After the first two decades, most old growth remaining would be on land unsuitable for timber harvest

and in Management Areas with no programmed timber harvest.

Table 3-2 displays the three possible timber harvest categories that old-growth acres are allocated to: 1) full yield; 2) partial yield; or 3) no programmed yield. Monitoring and inventory of old growth is a major part of the old growth issue and old growth is addressed in the Forest's monitoring plan. (See Table 5-2.)

Table 3-1  
**OLD GROWTH REMAINING AFTER FOREST PLAN IMPLEMENTATION**

Decade	% Forest in Old-growth	% Old Growth Remaining	Acres
0	15.8	100	98,617
1	13.1	83	81,852
2	12.0	76	74,949
5	10.3	65	64,101

Table 3-2  
**DISTRIBUTION OF OLD GROWTH BY TIMBER YIELD CATEGORY**

Harvest yield	% Acres of Old Growth	Acres
No programmed yield	60.3	59,031
Partial yield	10.6	10,534
Full yield	29.1	29,052

## 8. SPOTTED OWL

The spotted owl issue revolves around concern for retaining suitable habitat and owl populations. This Forest Plan is consistent with the Final Supplement to the Environmental Impact Statement for an Amendment to the Pacific Northwest Regional Guide, 1988 (Spotted Owl Guidelines).

This Plan will result in loss of 10 to 15 percent of the current estimated spotted owl population within the first decade, and about 25 percent by the end of the second decade. In the third through fifth decades,

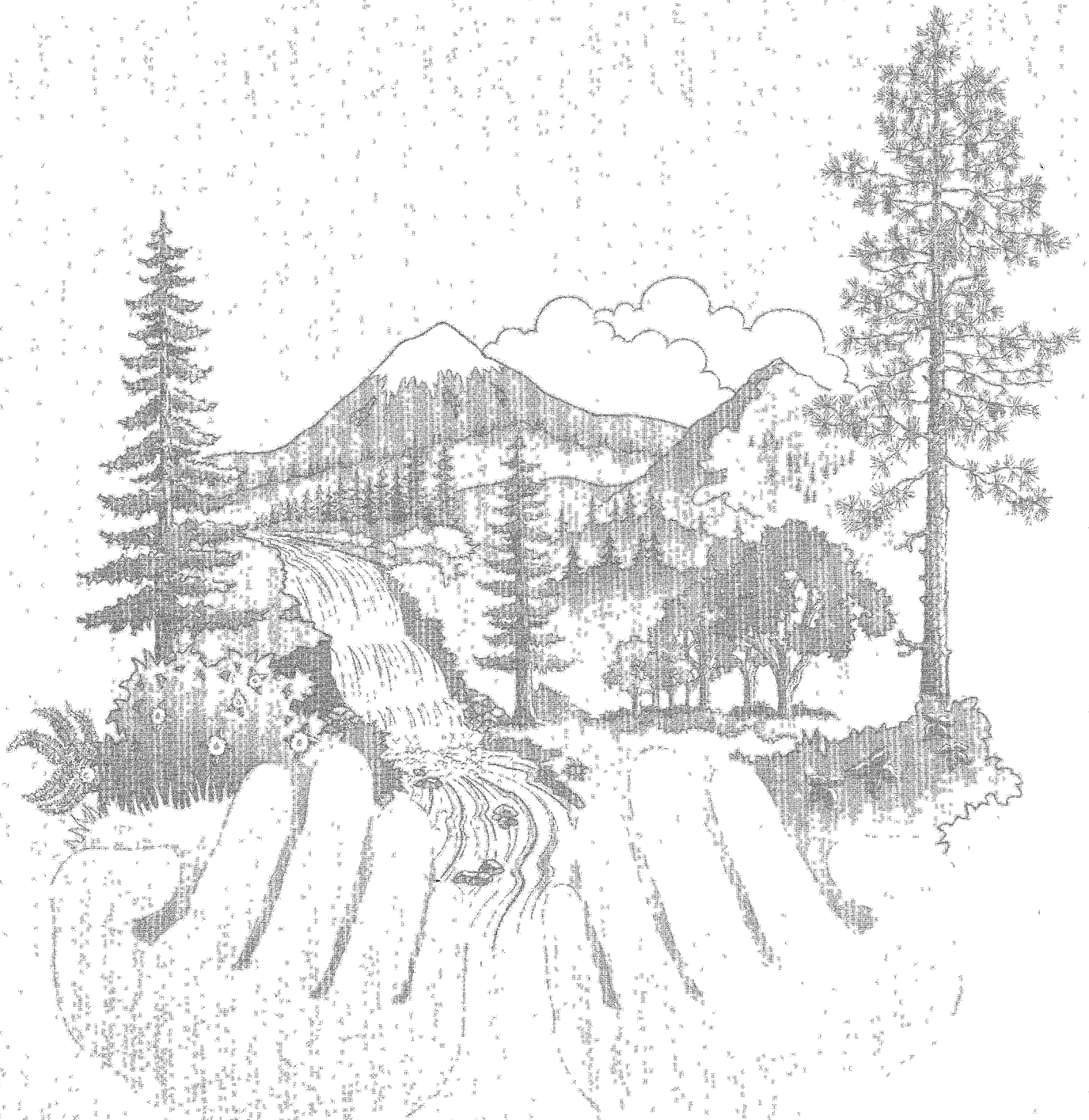
populations could be as much as 40 percent below levels before Plan implementation and stabilize at about 30 percent below the current level in the sixth and later decades.

Total acres of suitable owl habitat will decrease from the present 157,000 acres to about 131,000 acres by the end of the first decade and 110,000 acres by the end of the second decade. Habitat will reach a low of 88,000 acres following decade three and then increase until there are 92,000 acres available at the end of the fifth decade.

## CHAPTER FOUR

# Forest Management Direction

This chapter presents the management goals, objectives, standards and guidelines that constitute direction for resource management covered by the Forest Plan.



## CHAPTER 4

# FOREST MANAGEMENT DIRECTION

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### OVERVIEW

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This chapter presents the management goals, objectives, Standards and Guidelines that constitute the direction for land and resource management of the Rogue River National Forest. The first section of this chapter lists the goals and objectives for the Forest. These are the basis for the direction described in this chapter. Following the goals are sections describing the desired outputs and activities that are expected as these goals are met. These include forest management objectives, resource summaries and the desired future condition of the forest. The largest portion of this chapter consists of the narrative Management Strategies which indicate the management practices or prescriptions that will be applied to specific Management Areas. Management Strategies contain Standards and Guidelines for the Forest. The location of Management Areas is shown on the Forest Plan map.

### FOREST MANAGEMENT GOALS

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Forest goals are statements that describe a desired condition to be achieved. They are expressed in broad general terms and are timeless in that they have no specific date by which they are to be completed during the planning period. Goal statements form the principal basis from which objectives are developed. The goals for the Rogue River National Forest are listed below by resource area.

#### OVERALL

Provide a balance of resource management activities that will maintain a healthy forest ecosystem as well as helping to supply local, regional, and National social and economic needs.

Maintain close coordination with adjacent land owners, both private and public (e.g. Crater Lake Na-

tional Park and the Bureau of Land Management) for better management of all resources.

Seek opportunities for partnerships with other agencies and the private sector to enhance resource protection and local development.

#### AIR

Maintain air quality at a level that is adequate for the protection and use of National Forest resources, and that meets or exceeds applicable Federal and State standards and regulations.

#### SOIL AND WATER

Maintain or improve water quality in Forest streams. Protect streams from detrimental changes in water temperature or water chemistry and from degradation of channels.

Maintain or improve the integrity of riparian and streamside ecosystems which include streambank stability, vegetation, terrestrial and aquatic habitats.

Maintain or improve water quality and streamflow in Ashland, Medford, and Talent municipal watersheds to provide water which, with adequate treatment by the purveyor, will result in a safe and satisfactory water supply.

Maintain or improve soil site productivity in all resource management activities.

Rehabilitate degraded land to a productive state.

#### LANDS

Achieve a land ownership pattern which will best meet resource needs and minimize administrative costs.

## **TIMBER**

Provide for production of wood fiber to contribute to National needs and to benefit local economies consistent with multiple resource objectives, environmental constraints and economic efficiency. Utilize a policy of non-declining flow and timber rotations at or above 95 percent of culmination of mean annual increment (CMAI).

Use silvicultural techniques that insure prompt and adequate regeneration of appropriate species. Optimize growth, minimize disease and insect losses, and protect or enhance long-term site productivity.

Use silvicultural techniques to provide a diversity of forest ecosystems.

Provide fuelwood and miscellaneous forest products for personal and commercial uses.

## **RANGE**

Provide forage from suitable rangelands for domestic livestock in a manner consistent with other resource objectives and environmental constraints.

## **WILDLIFE, FISH AND BOTANICAL RESOURCES**

Maintain or enhance the unique and valuable characteristics of riparian areas and maintain or improve water quality, wildlife habitat and fish habitat near or within riparian ecosystems.

Provide habitat for viable populations of all existing native and desired non-native vertebrate wildlife species and maintain or enhance the overall quality of wildlife habitat across the Forest.

Provide optimum hiding cover, thermal cover and forage conditions on big-game winter ranges.

Protect and maintain aquatic ecosystems that support anadromous and resident fish.

Protect and manage habitat for the perpetuation and recovery of plants and animals which are listed as Threatened, Endangered or Sensitive.

Actively seek and promote partnerships with public agencies, user groups and other members of the

public for enhancement of wildlife, fisheries, and botanical resources.

## **BIOLOGICAL DIVERSITY**

Maintain or enhance ecosystem function to provide for long term integrity and productivity of biological communities.

Maintain viable representation of native plant and animal species, biological communities, and seral stages that currently exist or would naturally occur. Provide the distribution and abundance of species, communities, and seral stages necessary to accomplish this goal.

## **PROTECTION**

Provide well-planned and executed fire protection and fire management programs that are cost-efficient and responsive to land and resource management goals and objectives.

Control Forest pests to levels that are compatible with resource objectives.

## **WILDERNESS**

Preserve the natural conditions and outstanding opportunities for solitude represented in the three Wildernesses on the Forest.

## **RECREATION, VISUALS AND CULTURAL**

Maintain a healthy, diverse, and visually pleasing forest setting that enhances local tourism and provides an attractive visual backdrop to surrounding communities.

Fully implement the National Recreation Strategy through the development of partnerships with other local and federal agencies, and other groups and individuals. Support local economic development strategies that focus on increased recreation and tourism.

Recognize special areas and resources for their unique values and manage them to protect and perpetuate those values.

Offer a wide range of developed and dispersed recreation opportunities by providing recreational settings, access, facilities, and education necessary to meet public demand.

Protect and enhance identified, outstanding values and free flowing condition of the Wild and Scenic River.

Provide for the identification, preservation, management, maintenance, and restoration of prehistoric and historic sites, buildings, objects, and antiquities of local, regional or national significance so as to preserve their historical, cultural and scientific values for the benefit of the public.

#### **MINERALS AND ENERGY**

Provide for exploration, development and production of mineral and energy resources on the Forest in coordination with other resource values and environmental considerations, and laws related to mineral and energy development.

Provide for exploration, development and production of a variety of minerals on the Forest in coordination with other resource objectives, environmental considerations and mining laws.

#### **FACILITIES**

Provide and manage efficient administrative sites and facilities sufficient to accomplish land and resource management and protection objectives.

Provide safe, efficient, environmentally sound access for the movement of people and materials involved in the use and management of National Forest lands.

#### **HUMAN RESOURCES AND COMMUNITY DEVELOPMENT**

Provide all persons equal opportunities regardless of race, color, creed, sex, marital status, age, handicap or national origin.

Assist local communities in making successful transition from existing economic and social conditions occurring in the area by fostering the initiatives included in the Pacific Northwest Strategy.

#### **FOREST MANAGEMENT OBJECTIVES AND RESOURCE SUMMARIES**

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This section projects the outputs and resource activities which are projections of the goods and services anticipated as the Plan is fully implemented. These outputs and activities are resource management objectives for the Forest and are expressed as average annual outputs in Table 4-1. Actual achievement of the levels of outputs and activities may vary from the projected outputs due to fluctuations in funding, personnel, and unforeseen conditions. The figures given for the first decade are for the Forest Plan period; those given for decades 2-5 are for information purposes only. The program outputs and activities are secondary to the Standards and Guidelines which will not be violated to achieve targets. A more detailed listing of tentative resource activities planned for the first ten years of plan implementation is located in Appendix A.

Following Table 4-1 are narrative descriptions by resource group which describe the various objectives and resource programs which are integrated into an overall Forest management program by this Plan.



Table 4-1  
**AVERAGE ANNUAL FOREST OUTPUTS AND ACTIVITIES**

Output	NAS1/ Code	Unit of Mea- sure	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
Air Quality Index (TSP)	FA1	M Tons	3.6	3.5	3.5	3.4	3.2
Fire Management Effectiveness Index	PF11	FMEI 2/	1753	1823	1896	1972	2051
Fuel Treatment by Prescribed Fire	PF2	M Acres	3.8	3.7	3.7	3.5	3.3
Improved Watershed Condition	FW22	Acres	2455	2623	2623	2523	2623
Water Yield		M Ac/Ft	1500	1500	1500	1500	1500
Land Line Location	JL24	Miles					
Land Line			6	0	0	0	0
Wilderness/Wild & Scenic			25	0	0	0	0
National Park Boundary			4	0	0	0	0
Maintenance							
Land Line			90	96	96	96	96
Wilderness/Wild & Scenic			11	36	36	36	36
National Park Boundary			1	5	5	5	5
Allowable Sale Quantity 3/	ET114	MMCF MMBF	22.23 119.8	23.69	23.69	23.69	23.69
Timber Sale Program Quantity 4/	ET114	MMCF MMBF	22.82 123.0	24.32	24.32	24.32	24.32
Fuel Wood	ET12	MMCF	.26	.27	.27	.27	.27
Reforestation	ET24	Acres	4410	3960	4350	3960	2775
Timber Stand Improvement	ET25	Acres	4390	4250	4000	5540	6680

(See end of table on page 4-6 for footnotes)

Table 4-1 (Continued)  
**AVERAGE ANNUAL FOREST OUTPUTS AND ACTIVITIES**

Output	NAS Code	Unit of Mea- sure	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
RRNF Tentative Prescriptions by Harvest Type Commercial Thinning	ET12	Acres MMCF	2430 1.81	1210 .25	1200 1.89	3170 4.87	5150 8.23
Clear-cut	ET12	Acres MMCF	1760 11.07	1930 11.40	2160 13.39	1960 11.16	1450 8.29
Shelterwood	ET12	Acres MMCF	1020 3.01	1240 3.25	1320 3.74	1210 3.17	770 2.16
Overstory Removal	ET12	Acres MMCF	2190 6.33	3760 8.78	2990 4.67	3250 4.49	3470 5.01
Permitted Grazing	DN1	M AUMs	21.2	21.9	22.6	23.2	24.0
Noxious Weed Control	DN24	Acres	61	63	65	65	65
Wildlife Use	CW1	M WFUDs	105	120	136	153	166
Fish Use	CF1	M WFUDs	7	12	14	16	18
Wildlife Habitat Improvement	CW222 CW221	Acres Struc- tures	1114 2048	1114 2048	1114 2048	1114 2048	1114 2048
Fish Habitat Improvement	CF222 CF221	Acres Struc- tures	20 210	10 50	10 50	10 50	10 50
Riparian Inventory		Miles/Yr	50	30	30	30	30
Developed Recreation Use 5/	AN12	M RVDs	369	407	449	496	547
Wilderness Use 5/	AW1	M RVDs	12	16	18	21	25

(See end of table on page 4-6 for footnotes)

Table 4-1 (Continued)  
**AVERAGE ANNUAL FOREST OUTPUTS AND ACTIVITIES**

Output	NAS Code	Unit of Measure	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
Non-Wilderness Dispersed Recreation Use 5/	AN12	M RVDs	174	213	234	258	285
Trail Construction and Reconstruction	AT22	Miles	10	5	5	10	5
Developed Recreation Site: Construction and Reconstruction	AM22	PAOT	120	60	60	60	60
Cultural Resource Survey	AC111	M Acres	10	2.5	.5	.5	.5
Arterial and Collector Road Construction Reconstruction	LT22 LT22	Miles	2.2 17.9	0 17.9	.2 7.3	0 5.0	0 5.0
Timber Purchaser Road Construction Reconstruction	LT22 LT22	Miles	27.8 20.0	13.0 20.0	6.0 20.0	3.5 20.0	2.0 20.0
Roads Suitable for Public Use Passenger Car High Clearance Vehicles		Miles Miles	937 1465	937 1545	937 1580	937 1600	937 1610
Road Maintenance	LT23	Miles	3205	3410	3505	3550	3580
Operational Costs		MM\$ 6/	13.6	14.5	-	-	-
Capital Investment Costs		MM\$ 6/	14.8	13.7			
Total-National Forest System Appropriated		MM\$ 6/	28.4				
Returns to Government		MM\$ 6/	12				
Payments to Counties		MM\$ 6/	6.8				

1/ NAS code references National Accounting System.

2/ FMEI = Dollars per 1000 acres protected.

3/ All merchantable volume from lands suitable for timber production.

4/ Includes ASQ volume from suitable plus fuelwood and convertible forest products including chips.

5/ Numbers reflect expected average annual outputs which are projections of existing use into the future

6/ Derived from Budget, not FORPLAN.

## **FOREST MANAGEMENT OBJECTIVES AND RESOURCE SUMMARIES**

### **SOIL AND WATER**

Maintenance or improvement of water quality can best be achieved through proper management of entire watersheds with particular consideration being given to riparian areas. All riparian areas on the Rogue River National Forest will be given special attention to address their importance for maintenance of streamflows, water quality, terrestrial wildlife habitat, and fisheries.

Where watersheds are degraded, the goal will be to improve conditions to a point where water quality meets standards, aquatic life can be sustained and increased, and soil conditions are acceptable. Types of work considered are revegetation, erosion control structures, and closure or obliteration of old roads. Proposals will be identified so that appropriate projects can be developed to mitigate any adverse impacts. Over time the backlog of needs will be completed. Projects will be maintained as needed.

A watershed improvement needs inventory will be continued and projects will be implemented through a priority system. These projects are generally from past activities that were not identified or were slow to develop into a need. A program of work to improve stream and watershed conditions based on this inventory is shown in 10-Year Activity Schedules in Appendix A. This table will be modified as new project areas are identified or projects are completed. Existing and future improvements will be maintained for the life of the improvements.

Management of the municipal watersheds will continue to receive priority on the Forest. These watersheds currently serve over half of the residents of Jackson County. As population increases, the number of people dependent on water from the National Forest will also increase. There will probably be an increased demand for diversion of water from the Forest for individual domestic use and for additional municipal supplies. For instance, one possible project proposal is a second storage reservoir in the Ashland Creek Watershed for additional water for the City of Ashland. While the dam and reservoir would be primarily on the City's land, it would affect management of National Forest land.

A major Forest program in the near future will be identification and quantification of water uses. As demands for water throughout the states increase, it will become necessary for the Forest Service to specify the amount of water needed for management of the Forest. Where necessary, water rights for those uses will be obtained.

Land management projects will be designed to meet Standards and Guidelines as well as other Forest policies to assure that soil-site productivity goals are being met. This includes the application of Best Management Practices (See Appendix D.) in planning, implementation and maintenance of all Forest activities.

Long-term site productivity will also be addressed, including maintenance of organic material and down woody material needs. Soil productivity is dependent upon the maintenance of the soil organic material. This organic material is supplied from two sources: large woody material (10 inches in diameter and 10 feet in length or larger) and fine organic material (needles, limbs, etc.) called litter. The large woody material supplies a reservoir of material over a fraction of the area. The litter supplies the majority of the replenishment of the soil organic material and humus. Both are critical for the maintenance of the soil productivity by supplying nutrients, additional water holding capacity, increased soil structural stability, etc.

Coordination with other resources is a key area for the soil and watershed programs on the Forest in order to provide adequate input into the planning, implementation and monitoring of ground disturbing projects and activities.

Assessment of the cumulative effects of all activities by site, watershed, and basin on the soil and water resource will be considered. Cumulative watershed effects will be analyzed on a basin level for management planning purposes when warranted. To implement the Plan, the Forest's 16 watershed analysis areas have been divided into sub-basins of 1000 to 3000 acres in size to accommodate more detailed cumulative effects analyses on a project-level basis.

Existing timber suitability inventories will be refined and updated as site-specific project planning is completed for resource activities. Lands that do not meet soil productivity standards for proposed resource management objectives or that have been degraded in the past, will be rehabilitated or re-

moved from the commodity-based inventory. As these lands are identified through the early part of the decade, Forest Plan activity schedules will be updated to include additional rehabilitation projects.

Another important program objective for soils in this Plan is to update the 1977 Soil Resource Inventory to a level higher than a reconnaissance survey.

A monitoring program will be established to address the effectiveness of BMPs, and other practices or standards and guidelines to ensure that water and soil resource objectives are being met.

The Forest will continue to work with other agencies concerned with development and management of the Forest's soil and water resources. Some agencies included are Soil Conservation Service, Oregon Water Resources Department, California Water Resources Control Board, Oregon Department of Environmental Quality, California Water Quality Control Board, and Oregon Department of Fish and Wildlife, and California Fish and Game.

## LANDS

### Special Uses

Activities allowed under special use permit are generated by the private sector and other government agencies. Therefore, there are no production targets. Based on past experiences, it can be estimated that approximately 200 special use permits will be on file in any given year of the first decade.

Objectives of special use management are to:

Evaluate applications and respond to proposals promptly

Consider public benefits as well as the applicants need by evaluating the relationship of a proposal to other forest uses and objectives

Attempt to provide alternatives to the applicant when the proposal and other forest uses are in conflict

Eliminate special uses necessitated by erroneous or unposted landlines

### Land Exchange

The Forest through its land adjustment planning process has identified approximately 10,000 acres as being available for exchange or interchange. It is anticipated that at some point within the next ten years the Forest will have completed a major land exchange involving approximately 7,000 acres.

The objectives of the land exchange program are to:

Acquire lands needed to meet the Forest's specific objectives and dispose of lands which are difficult to manage, isolated or unsuited for National Forest purposes

Acquire lands meeting Region 6 priorities which includes:

- Those lands Congress has designated for acquisition, e.g., wilderness;
- Those lands contributing to special management or special public needs;
- General Forest lands.

### Landlines

Approximately 1000 miles of land lines are necessary to manage the Forest. The lines include boundaries between the Forest and private land, State land, Bureau of Land Management land, and Crater Lake National Park. The lines also include the boundaries of Congressionally designated Wilderness Areas and Wild and Scenic Rivers.

Survey, marking, and posting of these land lines to standard should be completed within the first decade. In addition, an ongoing maintenance program is planned to assure that these land lines and their controlling corners are properly maintained every seven years.

## BOTANICAL RESOURCES

The Rogue River National Forest is rich in unique plant communities and botanical resources. The Forest Plan reflects concern for those resources through management of sensitive plant species, establishment of Botanical Areas, Special Interest Areas, Research Natural Areas, and other land allocations which recognize and protect these resources.

Many of the largest, most stable populations and concentrations of sensitive plant species and other unique vegetative communities are found in the twelve Botanical Areas designated as a result of this Forest Plan. Direction for these areas is provided under Management Strategy 12, with the goal to maintain or enhance the botanical values (including sensitive species) present in these areas. Management plans for individual Botanical Areas will be completed during the first decade. Several of the Research Natural Areas (Abbott Creek, Oliver Matthews, and Red Mountain) also contain significant populations of sensitive plant species.

The Botanical Areas established in this Plan include the following:

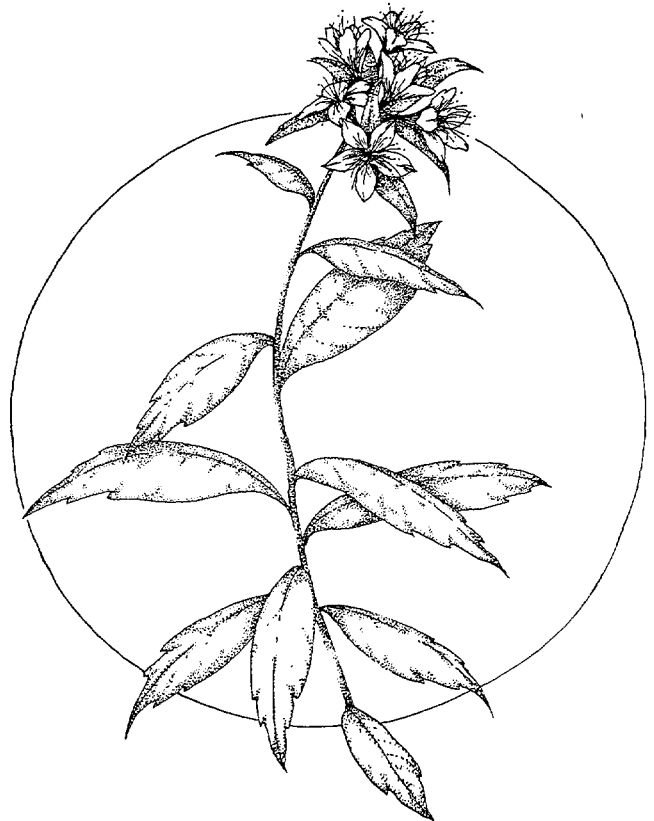
Cook and Green Pass	Red Mountain
Dutchman Peak	Observation Peak
Grayback Mountain	Scraggy Mountain
Hinkle Lake	Whiskey Peak
Lyman Creek/Doe Hollow	White Mountain
McDonald Peak	Miller Lake

There are no known populations of currently listed Threatened or Endangered plant species on the Forest. However, as previously mentioned there are numerous Sensitive plant species. Habitat is managed to ensure that these species do not become threatened or endangered because of management activities. Where these species may occur, the Biological Evaluation process (FSM 2672.4) will be used during project planning to determine effects of proposed activities on species viability. When such species are present, field evaluation data will be used to determine mitigation measures consistent with Forest program goals. No activity shall occur if it jeopardizes overall species viability or Forest-wide species viability.

Partnerships and volunteer assistance are a valuable part of the Forest botany program and will continue into the next decade. Botanical partners include the Oregon National Heritage, Oregon De-

partment of Agriculture, Berry Botanic Garden and the Native Plant Society.

Continued coordination with adjacent Forests will be needed for management of shared Botanical areas and Research Natural Areas. In addition, as other Forest Plans are completed changes may need to occur. For instance, the Mt. Ashland Botanical area described in the FEIS Appendix F was not selected as part of this Forest Plan. But it is intended to be designated as a Botanical area to join the adjacent Botanical area on the Klamath National Forest if that adjoining area (which is much larger) is in fact chosen as part of the Klamath's Forest Plan.





## RESEARCH NATURAL AREAS

Research Natural Areas are part of a National network of important ecological areas established for non-manipulative research, observation, education and study. They preserve a wide spectrum of pristine values or natural situations that can be used as: (1) baseline areas against which effects of human activities can be compared, (2) sites for study of natural processes in undisturbed conditions, and (3) gene pool preserves for all types of organisms.

The Forest Plan recommends four new Research Natural Areas (RNAs): Oliver Mathews, Red Mountain, Wickiup Springs, and Sherwood Butte. Two other RNAs, Abbott Creek and Ashland, are already established on the Forest. All of these areas will be managed under the Standards and Guidelines for Management Area 25 - Research Natural Areas. The objective of this Management Area is to maintain the natural quality within RNAs and to maintain the RNA cells and vegetation communities that led to establishment or recommendation of the areas as RNAs. Establishment reports will be completed for each of the newly established RNAs.

Additional opportunities for RNA representation of other important ecological areas will continue to be evaluated during the next decade in cooperation with other land-managing agencies within common ecological provinces. This will be accomplished through additional inventory and prioritization of potential RNA sites and ecological cells needed to fulfill the National network needs.

## BIOLOGICAL DIVERSITY

The Forest Plan provides for biological diversity through land allocations, Standards and Guidelines, and the Monitoring and Evaluation program (see Chapter 5). Management Areas which have strategies specifically designed to maintain or enhance important elements of diversity are: 12 (Botanical Area), 14 (Big Game Winter Range), 15 (Old Growth), 16 (Mature Habitat), 19 (Spotted Owl Habitat), and 25 (Research Natural Area).

Strategies that tend to preserve existing biological diversity because they do not have programmed timber harvest and discourage (or prohibit) most ground disturbing activities include: 1, 2, 3, 5, 10, 13, 22, and 26.

The following portions of the Standards and Guidelines common to all Management Strategies will also help maintain diversity on Management Areas with programmed timber harvest:

Soils,

Wildlife, Fish, and Plants (the entire section),

Timber,

- Forest opening size and distribution guidelines;
- Age class distribution guidelines; and
- Species composition and genetic diversity guidelines for reforestation.

Water,

- Best Management Practice requirements;
- Project planning and implementation guidelines.

Protection (pest control guidelines).

The ecology program will continue to identify and refine plant associations. Knowledge of associations and seral stages will give important information for future planning of biological diversity. In addition, a more detailed inventory has begun which will include a managed stand survey, vegetation mapping (ecotyped to series or plant associations), and old growth.

The Forest's Monitoring and Evaluation plan (see Chapter 5) includes three monitoring items designed to track certain elements of biological diversity (total diversity, forest fragmentation, and old-growth acres). The monitoring effort will be used to evaluate the effectiveness of the Forest Plan in meeting its biological diversity goals. One of these monitoring items, Total diversity, assesses information gathered for many other resources in order to provide an overview of diversity trends on the Forest.

## VEGETATION AND TIMBER

Timber harvest is scheduled only from lands that are considered suitable for timber harvest in Man-

agement Areas that include programmed timber harvest. Management Areas 20 (Timber Suited 1), 21 (Timber Suited 2), and 23 (Managed Watershed) provide full timber yield. Management Areas providing reduced yield outputs include 6 (Foreground Retention), 7 (Foreground Partial Retention), 8 (Middleground Retention), 9 (Middleground Partial Retention), 11 (Scenic River), 14 (Big Game Winter Range), and 16 (Mature Habitat). No other Management Areas have a programmed timber yield during the decade.

The Rogue River National Forest is characterized as a "deficit" inventory Forest when examining the scheduling of potential timber harvest. The amount of existing mature and old-growth timber volumes is insufficient to begin harvesting at the long-term sustained yield level. (See Figure 4-1.) To follow a non-declining flow schedule, the existing inventory in mature stands must be metered out until regenerated stands become available for harvest. Of the existing and mature stands in Management Areas with scheduled timber harvest, approximately 60 percent would be harvested by the end of the fifth decade.

The annual allowable sale quantity is 22.23 MMCF (119.8 MMBF) in the first decade, increasing to 23.69 MMCF in the second through fifth decades. The long term sustained yield for the Forest is 30 MMCF and is met by the ninth decade. The allowable sale quantity in this Plan is the maximum amount of chargeable volume which may be cut, subject to the broad discretion of the Forest Service to sell timber as part of the multiple-use concept.

Timber harvest will include a full spectrum of silvicultural methods, depending on site-specific conditions and management direction. Methods may include clearcutting, shelterwood, seed-tree, group selection, and individual tree selection. The even-aged methods of clearcutting and shelterwood will be the most common for timber lands managed for full timber yields. Unevenaged management may be utilized when certain stands conditions exist, or when necessary to meet Management Strategy goals, such as visual resource or wildlife objectives. In addition, any timber management method may incorporate practices that maintain or enhance the diversity of the Forest so long as the objectives of the Management Strategy can still be attained. This might include uneven or multi-aged stand management; maintaining or enhancing a multi-aged, diverse forest; or specific practices to maintain or en-

hance biological diversity of the site, such as retention of one or more components of the existing stand.

NFMA requires that timber be harvested "generally at the culmination of mean annual increment." This is interpreted in the Regional Guide as being at least 95% of culmination. Accordingly, all yield tables are constructed so that this condition is met in the full yield management areas. This generally resulted in a 90-year rotation, although it varies by working group and management intensity. The range is from 70 to 110 years. In other Management Areas, where timber production is secondary to another resource, the rotation ages are longer.

Silvicultural practices will be modified to minimize potential regeneration losses in known frost problem areas. These modifications include maintaining overstory trees for extended periods, regeneration of tree species more resilient to cold, managing multi-aged forests, maintaining residue with heat retention capabilities, and isolating and utilizing seedlings with the genetic trait of frost resistance. In addition, a recovery plan for the restoration of frost-damaged plantations (Dead Indian Recovery Plan) will be accomplished.

Reforestation activities include site preparation, planting, animal damage control, and vegetation control (release) that occurs during the first growing season of newly planted seedlings. Timber stand improvement includes activities implemented after the first growing season that are expected to enhance seedling survival or accelerate growth on a prescribed number of selected crop trees. Those activities are: vegetation management, thinning, and fertilization. Pruning is a timber stand improvement activity that improves wood quality, but is not a common practice on the Rogue River National Forest.

The Forest Plan is tiered to the Pacific Northwest Region's FEIS for Managing Competing and Unwanted Vegetation. The Forest will comply with the Record of Decision issued by the Regional Forester December 8, 1988 and the Mediated Agreement of August, 1989. This agreement allows the use of all vegetation management techniques, including herbicides, but allows the use of herbicides only when other methods are ineffective or will unreasonably increase project costs. Emphasis must be placed on prevention and early treatment of unwanted veg-

etation and full public involvement in all aspects of project planning and implementation

Prevention of reforestation problems associated with pocket gophers and competing undesirable vegetation will be an emphasis area. Harvest prescriptions and post harvest treatments should consider options for minimizing enhancement of pocket gopher habitat. Potential for undesirable competing vegetation will also be carefully analyzed prior to any portion of a project being implemented.

Timber-stand improvement activities are scheduled for most acres that are to be intensively managed.

Forest health is an emphasis area in this Plan. Preparation of harvest plans will include a focus on insect and disease problems in the forest. Annual aerial detection surveys will be made to help locate timber stands with these problems. Timber sales will be scheduled in these areas to enhance forest health as long as Standards and Guidelines within appropriate Management Strategies can be met.

Coordination between the timber program and other resource programs is essential to meet Forest management goals. Acres proposed for harvest or road construction, plus additional acres which require assessment of cumulative effects, will be examined to determine resource values and opportunities. Key areas of program coordination include visual resources, water quality, soil productivity, recreation, and fish and wildlife habitats.

Personal and commercial fuelwood and other products are available from many areas of the Forest, subject to considerations for site-specific management objectives. Fuelwood availability is expected to decline during this planning period. Demand in the area is also expected to be less due to concerns for air quality.

Integrated resource inventories are planned and implemented at least every ten years. Managed stand surveys and vegetation mapping contracts are

scheduled for the early 1990's. The managed stand survey will measure young stands on the Forest to validate expected height and diameter growth rates. The Forest will also be mapped according to ecotype plant association. A Forest resource inventory will be conducted to update timber growth information of all mature stands.

Timber outputs will be monitored and any significant deviations from those projected will trigger an analysis to determine whether a change is needed, e.g., an amendment and revision (see Chapter 5, Amendment and Revision). Tables 4-4 and 4-5 display the average annual acres and volume from various vegetation management practices necessary to meet Allowable Sale Quantity goals. Overstory removals on many existing shelterwood stands are dependent upon favorable frost-resistant conditions occurring within the next ten years. Actual timing of these overstory removals may vary, and will be monitored closely to determine if adjustments in ASQ are necessary. In addition, implementing proposed levels of commercial thinning shown in these tables will depend on favorable economic conditions. Annual levels of thinning may vary to take advantage of market conditions, but overall accomplishment will be monitored through the decade to determine if adjustments are needed. (See Chapter 5.)

The following tables further display additional timber and vegetation management information. Table 4-2 displays the land classification for the Forest. Table 4-3 breaks down the land classification further by Management Area. Table 4-4 displays the predicted vegetation management practices for the planning period. Table 4-5 displays the timber productivity classification. Table 4-6 displays the allowable sale quantity and the timber sale quantity program for the plan. Table 4-7 shows present Forest Conditions and expected future conditions at the end of the planning horizon in 150 years. Figure 4-1 is a graph of the allowable sale quantity and the long-term, sustained yield capacity for the Forest Plan and the planning horizon.

Table 4-2  
LAND CLASSIFICATION

CLASSIFICATION	ACRES	
1. Non-Forest land (includes water)		71,344
2. Forest land		560,684
3. Forest land withdrawn from timber production		83,702
4. Forest land not capable of producing crops of industrial wood	0	
5. Forest land physically unsuitable: --irreversible damage likely to occur --not restockable within 5 years	23,286 62,917	86,203
6. Forest land -- inadequate information		0
7. Tentatively suitable forest land (item 2 minus items 3, 4, 5, and 6)		390,779
8. Forest land not appropriate for timber Production Management Requirements Multiple-use Objectives Cost efficiency	27,452 37,228 10,653	75,333
9. Unsuitable forest land (items 3, 4, 5, 6 and 8)		245,238
10. Total suitable forest land (item 2 minus item 9)		315,446
11. Total National Forest land (items 1 and 2)		632,028

Table 4-3 details how the tentatively suited (and total Forest) acres have been allocated to the various Management Areas.

The tentatively suited acres that have been allocated to no-scheduled harvest Management Areas as shown in columns 6 and 7 of Table 4-3. Those that have been allocated to meet the management requirements of National Forest Management Act are in column 6 while the acres allocated to meet other multiple use objectives are listed in column 7. Column 9 lists those acres that the FORPLAN optimiza-

tion model omitted from solution for reasons of cost efficiency. The acres in column 9 represent the land base on which FORPLAN based its calculation of the allowable sale quantity. (For more discussion of FORPLAN see FEIS, Appendix B.)

Acre assignments to Management Areas 4, 10, 13, and 25 that were decided prior to this planning effort, by either Congressional or administrative withdrawal do not show up as tentatively suited in Table 4-3.

Table 4-3  
LAND CLASSIFICATION BY MANAGEMENT AREA

1  Management Area	2  Programmed Timber Yield	3  Total Acres in Management Area	4  Tenta- tively Suitable Acres  (S-1)	5  Tenta- tively Suitable Acres  (S-2)	6  Acres Used to Meet Manage- ment Re- quirements	7  Acres Used for Multiple Use Objec- tives	8  Acres Unsuit- able for Cost Effici- ency	9  Total Acres Suit- able for Timber Production
1. Minimum Management	None	59,704						
3. Backcountry Non-motorized	None	12,801	4,310	132		4,442		
4. Developed Recreation	None	5,352	2,009	115		2,124		
5. Special Interest Area	None	19,870	8,231	1,339		9,570		
6. Foreground Retention	Partial	21,672	17,734	350			7,773	10,312
7. Foreground Partial Retention	Partial	5,790	4,409	424				4,833
8. Middleground Retention	Partial	536	208					208
9. Middleground Partial Retention	Partial	9,855	6,548	9				6,557
10. Wild River	None	1,953						
11. Scenic River	Partial	5,440	4,557				2,300	2,257
12. Botanical Area	None	5,864	767	330		1,097		
13. Wilderness	None	92,793						
14. Big Game Winter Range	Partial	67,695	47,874	2,135			580	49,429
15. Old-Growth	None	7,852	5,123	619	5,742			
16. Mature Habitat	Partial	2,973	2,036	313				2,349
17. Primary Range	None	951						
18. Secondary Range	None	325						
19. Spotted Owl Habitat	None	29,724	17,716	3,994	21,710			
20. Timber Suitable 1	Full	192,621	192,621					192,621
21. Timber Suitable 2	Full	23,889		23,889				23,889
22. Restricted Watershed	None	9,946	5,966	1,899		7,865		
23. Managed Watershed	Full	28,052	21,900	1,092				22,992
25. Research Natural Area	None	6,678	904	67		971		
26. Restricted Riparian	None	19,512	10,121	1,038		11,159		
TOTALS		632,028	353,034	37,745	27,452	37,228	10,653	315,446

Note: Timber Suitable 1 and 2 acres are differentiated by the landforms on which they occur. Timber Suitable 2 lands are extremely sensitive requiring special management intensity to maintain long-term site productivity. Timber Suitable 1 and 2 lands are allocated to Management Areas 20 and 21 respectively.

Table 4-4  
**VEGETATION MANAGEMENT PRACTICES**  
 (Average annual harvest in first decade, for suitable lands)

PRACTICE	ACRES
Regeneration harvest:	
Clearcut 1/	1,760
Shelterwood and seed tree 1/	
Preparatory cut	
Seed cut	1,020
Removal cut	2,910
Selection 2/	300
Intermediate harvest:	
Commercial thinning	2,430
Salvage/sanitation 3/	3,000
Timber stand improvement	4,390
Reforestation	4,410

- 1/ Also includes harvests of existing multi-storied and multi-aged stands through overstory removal, partial removal, or other harvest methods that lead to a more even-aged regime.
- 2/ Estimated average annual acreage of anticipated treatment through an uneven-aged management regime.
- 3/ Estimated average annual acreage of anticipated salvage.

Included within the clearcut, shelterwood, and seed tree regeneration methods in Tables 4-4 and 4-6 are cutting methods that will appear as partial removal harvest when applied on the ground. Sixty-three percent of the mature timber stands on the Rogue River are multi-aged to the extent that they could not be included within any particular age grouping for inventory purposes (1980 Timber Inventory data). As harvests are prescribed for and implemented in these mature, multi-aged stands, a large percentage of the acres will remain at least partially stocked with multi-sized (varied age) trees immediately after harvest. The prescription assignment will be the result of existing stand conditions or other resource objectives. To the casual observer, these acres will appear to be managed with regeneration methods other than classical, even-aged harvest (clearcut, shelterwood or seed tree).

The acres shown under the selection regeneration harvest method estimate the expectations of prac-

ticing uneven-aged stand management. The combination of a multi-aged condition and location in a less-than-full yield management area make these acres the best opportunity to implement uneven-aged management. These are primarily found in Visual Resource Management Areas (MS 6,7,8, and 9). The volumes for these acres are not a substantial portion of the ASQ, and are included within the estimated volumes for the other regeneration methods in Table 4-6.

Salvage harvest will occur on an estimated 3,000 acres per year, which contribute to chargeable to ASQ. As the opportunities to salvage occur, either due to catastrophic events or the need to harvest other mortality within stands, the per-acre inventory level would be reduced, thereby reducing the harvest volume available at the time of regeneration. In Table 4-6, the volume projected from these salvage entries is already included within volumes for the other harvest methods, so is not shown separately.

Table 4-5  
TIMBER PRODUCTIVITY CLASSIFICATION

POTENTIAL GROWTH (Cubic feet/acre/year)	SUITABLE LANDS 1/ (1000 acres)	UNSUITABLE LANDS 2/ (1000 acres)
Less than 20	0	12.9
20-49	10.6	6.9
50-84	92.7	65.2
85-119	97.6	68.3
120-164	91.1	70.2
165-224	23.0	21.5
225+	0	0

1/ Does not include 11 M acres of economically unsuited, which has been included in the Unsuitable Lands column in this table

2/ Does not include non-forested acres.

Table 4-6  
ALLOWABLE SALE QUANTITY AND  
TIMBER SALE PROGRAM QUANTITY 1/  
(Average annual harvest for first decade)

Harvest Method	Allowable Sale Quantity 2/	
	Sawtimber (MMCF)	Other Products (MMCF)
Regeneration harvest		
Clearcut 3/	11.1	
Shelterwood and seed tree 3/		
Preparatory cut	0	
Seed cut	3.0	
Overstory removal	6.3	
Selection 4/	0	
Intermediate harvest		
Commercial thinning	1.8	
Salvage/sanitation 5/	0	
ASQ (119.8 mbf)	22.2	
Additional Sales 6/		
	Sawtimber (MMCF)	Other Products (MMCF)
	.02	58
TSPQ (123.0 MMBF)	22.8	8/

1/ Expressed to nearest 1 MM board and cubic feet.

2/ Only includes chargeable volumes from suitable lands.

3/ Also includes harvests of existing multi-storied and multi-aged stands through overstory removal, partial removal, or other harvest methods that lead to a more even-aged regime.

4/ Volume is not a significant portion of ASQ, and is included in other regeneration harvest levels.

5/ Volume is included in regeneration harvest.

6/ Only includes non-chargeable volumes from suitable and/or unsuitable lands.

7/ Based on local unit of measure. Includes all merchantable volume from "suitable for timber production."

8/ Total of allowable sale quantity (22.2), live merchantable volume from "unsuitable for timber production," (0.02) fuelwood and convertible forest products including chips (0.58).

# FOREST MANAGEMENT DIRECTION

Table 4-7  
PRESENT AND FUTURE FOREST CONDITIONS

	Unit of Measure	Suitable Land	Unsuitable Land
Present forest:			
Growing stock	MMCF MMBF	1,099 5,792	855 4,506
Live cull	MMCF MMBF	8 44	7 34
Salvable dead	MMCF MMBF	24 123	18 96
Annual net growth	MMCF MMBF	11 58	9 46
Annual mortality	MMCF MMBF	3 16	2 10
Future forest: 1/ Growing stock	MMCF	1064	
Annual net growth	MMCF	84	
Rotation age	Years	80 2/ to 300	

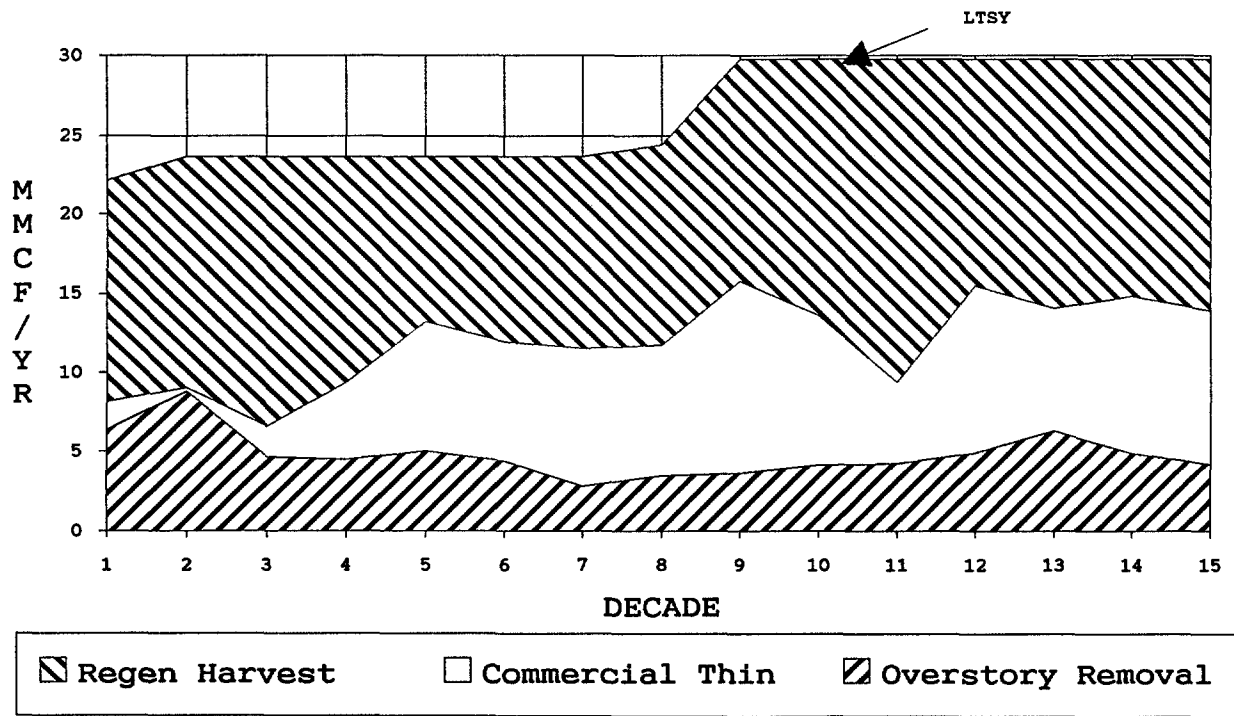
	Age Class	Present Forest	Future 1/
Age class distribution (Suitable acres)	0		
	10	40,802	
	20	62,318	7,835
	30	18,579	31,701
	40	1,797	27,871
	50		40,802
	60		62,318
	70		18,579
	80		1,797
	90		
	100	46,895	
	110		
	120	23,176	
	130		
	140	736	39,405
	150		
	160	28,986	21,948
	170	39,560	
	180	6,861	311
	190		
	200+	44,985	62,127

1/ At decade 5

2/ Average rotation age for regenerated stands on lands with timber emphasis by major forest types.



Figure 4-1  
TIMBER VOLUME BY HARVEST METHOD



## FOREST MANAGEMENT OBJECTIVES AND RESOURCE SUMMARIES (Continued)

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### RANGE

Grazing will continue to be a use of the National Forest under the guidelines established in this plan. Livestock numbers will remain near current levels. There are 25 range allotments on the Forest which contain approximately 570,000 acres. Of these, approximately 340,000 acres are considered suitable for range management. All Allotment Management Plans will be updated to reflect the direction contained in the Plan. Updates of these plans will occur on a priority schedule established by the Forest Supervisor (see Appendix A, Range 10-year Activity Schedules).

A plan of range improvement and livestock control projects is contained in the 10-Year Activity Schedule in Appendix A. The list contains such projects as fences to control distribution, watering ponds, and forage improvements. Noxious weed control activities are also an element of the Activity Schedules. The Allotment Management Plan will integrate these various activities to meet Forest Plan direction; they will require NEPA documentation.

Coordination of grazing use with other forest resources is a major emphasis in this Plan. Coordinated management of all resources will result in the attainment of the range objectives as well as the objectives of other resources. An example of coordination is in the riparian areas. Grazing will be permitted, but it will be monitored closely. If there is any conflict in management of the two resources, the grazing pattern will be modified or eliminated in order to protect the riparian areas.

### WILDLIFE AND FISH

Forest wildlife management objectives are designed to consider habitat needs for all existing native and desirable non-native vertebrate species. However, several groups of species have special management needs or are expected to be more affected by other resource management activities, such as timber harvesting, and are given emphasis in this Plan. They include: (1) species dependant on

specialized habitat conditions; (2) species requiring early, mature, or old-growth forest conditions for optimum habitat; (3) traditional game species; and (4) threatened, endangered, or sensitive species.

### Management Indicator Species

Five forest wildlife species and one group have been selected as management indicator species. An indicator species acts as a barometer, indicating the health of the habitat they represent, and will be monitored to quantify habitat changes predicted by implementation of this Plan.

Black-tailed deer and Roosevelt elk habitat will be managed to provide adequate forage, hiding cover and thermal cover conditions throughout the summer and winter range. Habitat capability levels provided will be consistent with those needed to meet and sustain State big game population benchmark levels. Benchmark levels are the number of deer or elk that must be produced on an ODFW Management Unit before restrictions or regulations designed to limit excessive harvest can begin to be relaxed. Benchmarks must be reached prior to initiation of antlerless hunts.

Three species represent mature and old-growth forest habitat conditions: (1) pine marten; 2) pileated woodpecker; and 3) spotted owl. Pine marten habitat is provided above 4,000 feet in elevation in habitat areas at least 160 acres in size. They are distributed so that the next habitat area is no more than three miles away in order to provide for genetic interaction. Pileated woodpecker habitat areas are 300 acres in size, distributed at least every five and one-half miles. Habitat areas for spotted owls are provided at least every six miles in 1,000-acre units (Siskiyou Province), and in 1,500-acre units (Cascade Province). There is no programmed timber harvest in these areas. Mature and old-growth habitat conditions also occur in other management areas that have no programmed timber harvest.

Habitat capability objectives for species of woodpeckers (besides pileated) have been set in each Management Area, ranging from 40 percent of potential population capability in Areas programmed for intensive timber harvest, to 100 percent of potential capability in Areas with less intensive or no scheduled timber production.

The habitat capability index of these selected management indicator species in the first decade is shown below:

Management Indicator Species (Index)

Blacktail deer	M Deer	17.7
Roosevelt elk	M Elk	1.96
Pine marten	Number	261
Spotted owl	Pairs	69
Pileated woodpecker	Number	933
All woodpeckers	M Birds	51.2

Riparian areas are recognized as unique habitats, which provide important conditions for fish, wildlife and other aquatic species. Because of their importance, all perennial streams, lakes, and wetlands are managed under Management Strategy 26 - Restricted Riparian.

#### THREATENED, ENDANGERED AND SENSITIVE ANIMAL SPECIES

There are numerous Threatened, Endangered, and Sensitive animal species found on the Forest. Habitat for species listed as Sensitive will be managed to ensure that these species do not become threatened or endangered because of management activities. Habitat for Threatened or Endangered species will be managed in accordance with approved Federal or State recovery plans for those species. Several management plans have been prepared for bald eagle and peregrine falcon areas. During the planning period, additional plans will be developed to better define management goals and methods. Where these species may occur, the Biological Evaluation process (FSM 2672.4) will be used during project planning to display the effects of proposed activities on Threatened, Endangered or Sensitive species. Where such species are present, field evaluation data will be used to determine the effects and recommend measures to ensure that species viability is not jeopardized by management activities. Consultation with USDI Fish and Wildlife Service will also be accomplished as appropriate.

#### WILDLIFE HABITAT IMPROVEMENT

Wildlife habitat improvement activities will take place during the life of the plan to rehabilitate, maintain, or improve the previously mentioned habitats. A big game habitat management plan will be developed to coordinate these activities.

The majority of habitat improvements will emphasize: 1) indicator species habitats; 2) threatened and endangered species needs; 3) deer and elk habitat; 4) and sensitive species. Examples include signing or creation of wildlife trees, manipulating stand or vegetation structure to optimize habitat components desired, improving nesting and roosting sites, restricting access during key time frames, improving forage, and providing adequate distribution of water sources.

Partnerships and volunteer assistance will continue to be a valuable part of the Forest wildlife program. Wildlife cooperative partners on the Forest are the ODFW, Oregon Hunters' Association and the Rocky Mountain Elk Foundation.

#### FISH HABITATS

The overall goal of the fisheries resource management program is to maintain all existing high-quality fish habitat and improve a substantial portion of the existing low-to-medium quality fish habitat, over time, for the production of anadromous and resident fish. The early part of the decade will focus on extensive inventory of existing habitat conditions, identification of limiting factors and improvement needs, and analysis of expected benefits.

An aggressive fish habitat improvement program will be implemented on the Forest in response to public desires and the realization that National fishing demand is expected to nearly double in the next five decades. This work, in concert with Best Management Practices in implementation of other resource activities, will result in improved water quality in fish streams and lakes on the Forest, maintenance of species diversity of aquatic flora and fauna, and an overall net increase in adult fish available for sport harvest. This will double the fish user days on the Forest by the end of the fifth decade, with an estimated annual increase of 250-275 fish user days. The Forest Service's "Rise To The Future" program will be implemented during the first

decade. An emphasis in the fish habitat management program will be placed on encouraging partnerships with the State, Federal agencies, conservation groups, and other publics. The National Recreational Fisheries Policy also emphasizes coordinated efforts with partners such as the Oregon Department of Fish and Wildlife (ODFW), Rogue Fly-fishers, Southern Oregon Bass Club and other groups and individuals.

Fish habitat improvement work will continue to expand as opportunities are identified during habitat inventories, with approximately 200-250 structures to be completed on the average each year during the first decade. Equally important will be efforts to rehabilitate the riparian zones on the Forest, using watershed and fisheries funds, by repairing eroding streambanks and floodplains.

The fish management program will be consistent with Oregon Department of Fish and Wildlife priorities for anadromous fish habitat, resident fish habitat in lakes and ponds, and resident fish habitat in streams. Major anadromous streams identified on the Forest include the Little Applegate and Applegate Rivers, Beaver Creek, Palmer Creek and South Fork Little Butte Creek. In-stream and riparian zone improvement projects will emphasize rehabilitation of past man-caused and naturally degraded aquatic and riparian habitats.

Lakes and ponds offer much of the recreational fishing opportunity on the Forest. Project work to enhance resident fish production will concentrate on these unique habitats. Applegate Lake and Fish Lake are the most important resident fisheries on the Forest. Cooperative projects with the State and user groups to improve the lake fisheries will be accomplished.

Enhancement activities will not occur in areas where little or no benefit can be shown, such as excellent pre-existing habitats, where poor water quality conditions exist, or where little opportunity for utilization of gained benefits can be realized.

Emphasis will also be placed on incorporating good land management practices that will not degrade habitat from the existing capability. Maintenance of present fish habitat capability focuses on protecting existing habitat conditions by minimizing adverse impacts from proposed management activities, or mitigating effects from past activities or natural

events. Because of this, coordination with other Forest resource uses will continue to be important.

Monitoring of land-management activities and their effect on habitat quality is an important aspect of the fisheries program, including long term measurements of changes in habitat quantity and quality, fish population structures, and individual project evaluations.

## PROTECTION

An Integrated Pest Management approach will be used to respond to insect and disease problems on the Forest. Insect and disease levels are continually monitored. A more intensive monitoring effort or suppression program will be implemented when trend shifts occur or when significant increases in damage occur. Prevention of significant damage through proactive forest health management is emphasized over containment or elimination of epidemic-type outbreaks. When pest-control actions are required, they will be biologically selective, and designed to minimize impacts to other resources.

The fire protection program includes the activities of fire prevention, presuppression management, suppression and fuels management. Fire management's role is to coordinate, plan, and implement cost-efficient fire protection and fire use programs which are consistent with resource values and Management Area prescriptions. Interagency cooperation and coordination will be emphasized particularly in the areas of smoke management and fire prevention in the urban-Forest interface. The operational activities required to meet the fire management direction for each Management Area, including fuels management, will be documented in the Fire Management Action Plan within one year after approval of the Forest Plan. Wilderness Fire Management Plans will also be prepared to provide specific direction for fire suppression and use.

The fuels management programs will stress the use of the best available technology and management techniques to minimize smoke production from prescribed burning activities. Under the implementation of the Forest Plan the exact acreage of fuel treatment will vary by the amount of slash-generating activities. Planned treatment of activity

## FOREST MANAGEMENT DIRECTION

and natural fuels is outlined in the 10-Year Activity Schedules (see Appendix A).

The fire protection and fire management programs will be monitored to determine if: (1) projects are cost efficient (Cost plus Net Value Change per thousand acres protected), and (2) estimated reductions in total suspended particulate levels are being realized (see Table 5-2).



## WILDERNESS

The 92,800 acres of designated Wildernesses on the Forest (Sky Lakes, Red Buttes, and Rogue-Umpqua Divide) will be managed to protect their wilderness character, to ensure that natural not humanly-directed processes predominate, and to provide opportunities for primitive forms of recreation and solitude. As provided for by law and regulations and in the Management Strategy and implementation plans in the Forest Plan, when potential conflicts develop between wilderness values and other resources or uses in these areas, the long-term protection and preservation of wilderness values will be paramount.

Management Strategy 13 - Wilderness, and the area-specific implementation plans developed for each of the Wilderness Areas provide detailed direction for wilderness management on the Forest. In addition to on-going study of recreation use patterns and impacts in the Wildernesses, the Forest Service will emphasize establishment of Limits of Acceptable Change (LAC) parameters for each Wilderness. Programs to gather baseline scientific data about other wilderness resources (e.g., air and water quality, vegetation communities, wildlife populations, etc.) will also be initiated.

The three Wildernesses on the Rogue River National Forest (Red Buttes, Sky Lakes and Rogue-Umpqua Divide) will be managed according to the Standards and Guidelines in Management Strategy 13. Generally, the recreation objective is Primitive and the Visual Quality Objective is Preservation.

## RECREATION

The Rogue River National Forest will provide recreation experiences across the range of the Recreation Opportunity Spectrum. The Forest will be placing increased emphasis on all aspects of recreation, due to both the National Recreation Strategy and the many comments that we received during public review of the Draft EIS of the Land and Resource Management Plan. The focus will be on meeting the needs of the recreation public, along with working with the four southern Oregon counties to assist them in meeting their economic development goals.

## FOREST MANAGEMENT DIRECTION

These goals are based on the development of the Recreation and Tourism industry.

Some of the projects that will be accomplished to meet the above goals include:

Reconstruction of the Union Creek Camp-ground;

Construction of the Union Creek Visitor Information Site;

Reconstruction and/or expansion of the Fish Lake Recreation Area;

Expanded parking at Hartish Park;

Historic restoration of McKee Bridge Picnic Site and the old Star Ranger Station;

Construction and/or reconstruction of approximately 50 miles of trails within the next five years;

Development of management plans for the Union Creek Historic District, the Fish Lake Recreation Complex, and the Upper Rogue Wild and Scenic River;

Installation of several interactive video terminals throughout the Rogue Valley that will provide up-to-date recreation information to both residents and visitors in the area.

The developed recreation program will emphasize the rehabilitation or upgrading of existing sites to modern standards. In addition, maintenance funding has been increased so that all sites will be managed at full service level. The Forest will manage for 9,968 persons-at-one-time (PAOTs) at the developed sites. Expansion of existing alpine ski areas will be emphasized over development of new ones.

Motorized recreation opportunities will increase slightly over current levels as new roads are built. At the same time, the opportunities for Semi-primitive Unroaded experiences will continue to decline as more of the existing "roadless" areas are developed. The acres to be managed in the various ROS classes are shown as follows:

<u>ROS Class</u>	<u>Acres</u>
Primitive	82,000
Semi-primitive	
Non-motorized	39,000
Semi-primitive	
Motorized	No specific acres are allocated to this ROS category; however, there are SPM opportunities during the snow season in several Management Areas.
Roaded Modified	387,000
Roaded Natural	124,000

The Semi-primitive opportunities are primarily provided in the former "RARE II" roadless areas, allocated to all or partial "non-development" Management Areas. These opportunities are listed in Table 4-8.

Table 4-8  
**SEMI-PRIMITIVE OPPORTUNITIES  
IN ROADLESS AREAS**

Former Roadless Areas	Management Area	Acres
Brown Mountain	Backcountry, Non-motorized	6,012
	Old-Growth	83
	Total	6,095
Condrey	Special Interest Area	4,836
	Botanical Area	566
	Spotted Owl Habitat	1,117
	Total	6,519
Kangaroo	Special Interest Area	4,000
	Backcountry, Non-motorized	2,005
	Botanical Area	1,689
	Old-Growth	741
	Spotted Owl Habitat	181
	Research Natural Area	1,424
	Total	10,040
McDonald Peak	Special Interest Area	1,414
	Botanical Area	523
	Restricted Watershed	4,995
	Total	6,932
Sherwood	Backcountry, Non-motorized	4,370
	Research Natural Area	726
	Total	5,096
	Total Acres:	34,682

## FOREST MANAGEMENT DIRECTION

The Upper Rogue Wild and Scenic River was designated under the Omnibus Oregon Wild and Scenic River Act of 1988. A management plan for this area will be completed in 1991. Management of the river corridor will emphasize the maintenance of the near-natural character of the River corridor and the continued availability of a high quality recreation experience.

Trail management objectives will be developed for all trails included in the Forest Trail System. This will be done through the access and travelway management planning process. The goal will be to fully maintain 522 miles of trails to the standards identified in the trail objectives. Annual inspections of a portion of all trails will identify the maintenance needs.

The Forest will continue to emphasize snow related trail activities. There will be an on-going winter trail planning and development program in the Union Creek Area, the Fish Lake/Rye Springs Area and on the south side of Mt. Ashland in cooperation with the Klamath National Forest in California.

Off-road vehicles (ORVs) are allowed in all areas of the Forest except where they are specifically restricted to designated roads, trails, or other areas where they are specifically not allowed. The following table shows the acres by type of ORV use:

<u>Off Road Vehicle Use</u>	<u>Acres</u>
Permitted	99,000
Restricted to Designated Roads and Trails	411,000
Prohibited	122,000

Management Areas in which ORV use is prohibited include Backcountry Non-motorized Areas (except over-snow seasonal use in some areas), Wilderness, Wild River, Restricted Watersheds, and Research Natural Areas.

ORV use is restricted to designated roads and trails in the following Management Areas: Developed Recreation, Special Interest Areas, Scenic River, Botanical Areas, Big Game Winter Range, Old-Growth, Mature Habitat, Spotted Owl Habitat, Restricted Riparian, Managed Watershed, and Timber

Suited 2 (timber lands designated as Management Strategy 21). (For more discussion of ORV use, see Appendix C, Off-Road Vehicle Management Plan.)

The Forest will continue to permit the use of approximately 80 recreation residences and the organization camps already established. Management of the Rogue Valley Baptist Camp will be examined during the Wild and Scenic River planning process.

Visual Resource Management will emphasize the maintenance of the natural or near-natural character of the landscape within the viewsheds adjacent to heavily used travel routes and recreation areas. All National Forest System lands are assigned a Visual Quality Objective ranging from Preservation to Maximum Modification. Forest lands within Wilderness, Wild Rivers, and Research Natural Areas are managed under Preservation. Lands within sensitive viewsheds are managed for Retention and Partial Retention. Lands within non-timber management strategies such as Botanical Areas, Special Interest Areas, and Backcountry Recreation Areas are generally managed for Retention. All other lands are managed for either Modification or Maximum Modification. The acres to be managed by visual quality objective category are shown below:

<u>VQO Category</u>	<u>Special Value</u>
Preservation	101,000
Retention	141,000
Partial Retention	24,000
Modification	117,000
Maximum Modification	249,000

Seven areas on the Forest will be managed for their Special Interest Area (SIA) values. Management plans are scheduled to be completed for each of these and are identified in the Activity Schedule in Appendix A.

<u>Special Interest Area</u>	<u>Special Value</u>
Highway 62 Scenic Corridor	Scenic
Union Creek Complex	Historic & Recreation
Grizzly Canyon	Geologic
Skeeter Swamp	Zoologic
Hershberger	Scenic
Rabbit Ears	Scenic & Geologic
Siskiyou Crest	Scenic

## CULTURAL RESOURCES

The Forest's cultural resources will continue to be identified and evaluated by means of on-going archaeological fieldwork and historical research. All reasonably "findable" cultural resources will have been located, inventoried and evaluated in the next ten years, with a survey program of approximately 10,000 acres per year. Significant cultural resources will be protected for long-term management which can include on-site interpretation, restoration, data recovery, and other measures. This will be identified through a site-specific management schedule.

A representative sample of appropriate cultural resources will be interpreted to the public by means of on-site signing, brochures or other methods. Significant archaeological sites will be protectively managed with long-term goals of data recovery and artifactual analysis. Significant structures will, as appropriate, be repaired, restored, and enhanced for long-term enjoyment, education, and use by the public.

The Forest will meet Federal and State legal requirements in the areas of cultural resource management compliance, site protection, and religious freedom associated with traditional uses of National Forest land and specific sites.



*Mt. McLoughlin Lookout, 1917*

## MINERALS AND ENERGY

Interest in minerals on the Forest is focused on gold although numerous other minerals are represented. Placer dredging is the most common form of mining. Currently, the Forest receives 30 to 40 operating plans each year covering 215 claims. The majority of these operating plans are on the Applegate Ranger District. The Forest also receives a large number of Notices of Intent each year. The Forest is host to numerous recreational miners, who enjoy gold panning and other non-disturbing mining activities. Without new major discoveries, technological improvements, or substantial changes in demand for minerals, the number of new mining claims is expected to remain constant or increase slightly for the planning period.

There are 60 oil and gas leases on the Forest located on Prospect, Butte Falls, and Ashland Ranger Districts. However, no activity has taken place to date. As a result of the Federal Onshore Oil and Gas Leasing Reform Act of 1987 the Forest Service now has the authority to consent or not consent to additional oil and gas leases. The Forest Supervisor will develop, in cooperation with the BLM, a schedule for analyzing lands on the Rogue River National Forest.

There are no geothermal leases on the Forest. However, results of exploration drilling occurring on the Winema National Forest may influence whether or not this interest will spread to the Rogue River Forest.

The Forest, in recent years, has sold approximately 3500 cubic yards of common mineral materials (sand, gravel, etc.). This amount is expected to remain fairly constant or slightly increase through the planning period.

Approximately 119,000 acres on the Forest have been withdrawn from mineral entry primarily in the three Wildernesses on the Forest. Most of the Forest (513,000 acres), other than designated Wilderness, are open for mineral exploration and development. Of the open areas ten percent are highly restrictive on minerals development activities, 22 percent are moderately restrictive and the remaining 68 percent have low restrictions.



Areas that are designated in the Forest Plan as RNAs, SIAs, and Botanical Areas will have a mineral examination done during the next decade. An evaluation for mineral potential will be included if warranted. Areas needing protection from mineral entry will then be recommended to the Bureau of Land Management for withdrawal.

During the next decade the Forest minerals program will emphasize administration of operating plans and coordination of minerals activities with other resource objectives to minimize conflicts and impacts.

## **FACILITIES**

Forest development roads will be operated, managed, and maintained in response to the Management Area direction in this Plan. Additional development of the road and trail systems will be undertaken as necessary to respond to that direction. Many road-related activities will occur in support of the timber management program. Other projects will be undertaken to facilitate recreational use, Forest administration, and resource protection.

The current road system of slightly over 3,000 miles is planned to grow to approximately 3,600 miles by the end of the planning period. Most of this additional development is construction of local roads. Approximately 280 miles of local road development is planned in the first decade and approximately 130 miles of local road development is planned in the second decade. The total mileage of arterial and collector roads should remain at approximately 940 miles throughout the planning period.

Administrative facilities will be managed to accomplish the land and resource protection and management objectives of the Forest. Facilities Management and Development Plans will be prepared for all Forest administrative sites. Facilities planning will consider both providing sufficient facilities to meet management needs and the long-term development and maintenance costs of those facilities.

## **HUMAN RESOURCES AND COMMUNITY DEVELOPMENT**

### **Human Resources**

Through Human Resource Programs, equal opportunity in employment, and affirmative action, the Forest will provide for a culturally diverse workforce. Programs, activities, contracting, hiring, and supervisory procedures will also be free from discrimination.

The Forest will strive to provide all persons the opportunity to participate in the management of the Forest, enjoy the opportunities, and receive the benefits from the National Forest System.

### **Community Development**

From a southern Oregon "regional" perspective, significant changes are predicted in economic and social arenas. Implementation of this Plan will contribute to some degree to those changes, such as the timber supply base, and its significance to economic factors such as employment, especially in smaller local communities.

The Forest will cooperate with these communities by using actions which are a part of the Pacific Northwest Strategy. The Pacific Northwest Strategy is a program that addresses the concerns regarding economic and social change and transition in communities that may be occurring, in part, due to Forest Service resource fluctuations.

Under this initiative the Forest Service may work with and through various government and business development programs to enhance the viability of local communities. This could include, for example, helping resource-dependent, rural communities and various government (local, Federal, and State) agencies to access grant money and employment development. In addition, activities which are a part of the Forest Service Recreation Strategy will benefit some communities by increasing recreation and service related industries.

## **DESIRED FUTURE CONDITION OF THE FOREST**

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This Plan will be reviewed every five years and normally revised every 10-15 years. This section describes the Forest as it is expected to be in 10 years if the management direction described in this plan is implemented. Following that is a description of what the Forest is expected to be like if the Plan were to continue as direction for 50 years into the future.

### **THE FOREST IN TEN YEARS**

At the end of the first decade there will be perceivable change in the overall character of much of the landscape within the Forest boundary. The landscape in the parts of the Forest managed for commodity production will be modified by new roads and harvest units. By the end of the first 10 years, many of the unroaded areas allocated to Management Areas that allow timber harvest would be developed.

Sensitive viewsheds will still appear in a natural or near natural visual condition. Areas with no programmed timber harvest, such as Wilderness, Research Natural Areas, Botanical and Special Interest Areas, and dedicated wildlife and riparian habitats will remain largely unchanged and natural in appearance.

Areas with programmed timber harvest will have cutting units distributed through the mature forest, with a complete range of silvicultural practices being implemented. Existing harvested areas and plantations will continue to develop through sapling and pole stages with some stands reaching large pole to small sawtimber size. Trees will be somewhat uniformly spaced and the species present will be representative of the natural diversity of the site.

Opportunities for roaded recreation will increase. Developed recreation capacity will keep pace with demand as new sites are developed and others are expanded. Opportunities for unroaded recreation will continue to be provided in three Wildernesses and in portions of five roadless areas (Sherwood, Brown Mountain, Condrey, McDonald, and Kangaroo). The total acres available for unroaded recre-

ation will continue to decrease, however, as timber harvest activities occur in some areas.

The Upper Rogue Wild and Scenic River will continue to have its outstanding features protected although increased recreational use will bring social change to the river environs.

Ease of access to Wilderness portals will increase. Although there should not be overcrowded conditions, some sites may be used to such an extent that management to Primitive Wilderness Recreation Opportunity Spectrum (WRS) standards will be difficult.

Most of the cultural resource sites on the Forest will be inventoried and protected. Historic buildings and archaeological sites near travelways or campgrounds may be developed for interpretation to recreational visitors.

Unique wildlife and botanical habitats and those habitats required for threatened or endangered species will be retained and protected. Riparian ecosystems will remain essentially unchanged by humans. Of the 100,000 acres of old-growth, 83% will remain after ten years of Plan implementation. Seral stages of terrestrial and aquatic plant associations will be provided in a distribution to maintain native and desired non-native plant and animal species and communities. Habitat for species favoring early seral stages will be distributed through areas where timber harvest is programmed.

New harvest areas will continue to provide high quality forage for deer and elk. Big-game winter ranges will be managed to provide forage, cover, and protection from impacting human disturbances.

Habitat for resident and anadromous fish would be maintained in streams, lakes, and ponds on the Forest. Substantial improvement through project work will occur in some stream and lakes that are currently below their potential. Riparian management prescriptions will maintain or lower summer water temperatures, provide energy input to the aquatic ecosystem, and future large woody material. Habitat and watershed improvement projects will increase habitat diversity and maintain stream channel stability.

## FOREST MANAGEMENT DIRECTION

Forest soil productivity will be maintained. Water yield and quality will not be significantly reduced or degraded as a result of human activity. High quality domestic water supplies will continue to be provided.

Mineral development on the Forest will increase, with the most activity being in prospecting, exploration, and extraction of gold and other precious metals. The physical and biological impacts will be minimized, with higher costs to the miner or developer. As existing rock sources are depleted and rehabilitated, new sources will be developed.

Land use permit numbers will increase slightly to accommodate appropriate requested uses. The administrative Forest boundary will have been surveyed and posted and maintained to standard. Landline location and posting of Congressionally designated areas will also be substantially complete.

The Forest will make some progress toward a more efficient land ownership pattern through acquisition or exchange programs and minor adjustments due to small tract claims.

The principal access roads will be readily identifiable, having paved or gravel surfaces. There will be 937 miles of access roads managed to encourage or accept passenger car use. Signs will assist travelers in finding their destination. There will be 1465 miles of road open to and managed for high clearance vehicle use. These will look rough and primitive to discourage use by travelers in passenger cars. Some of the roads managed for passenger car use and some of the roads managed for high clearance vehicle use will be closed seasonally to protect resource values, such as watershed and wildlife habitat.

An additional 943 miles of road will be managed for intermittent use. The time between periods of use will generally be in excess of one year. Between uses, all vehicle traffic will be eliminated from these roads with physical barriers. Continued road system development will take place at a rate of approximately 15 miles per year to provide local road access to resource development activities. Approximately 20 miles of the roads open to passenger cars will be reconstructed annually. Roads not needed for future management of the Forest will be obliterated.

The amount of total suspended particulates (TSP) from the Forest slash burning program will be reduced by 56% from baseline levels. Anticipated TSP levels should not contribute to a corresponding increase in local air pollution problems, as the burning program will be conducted in accordance with the State Smoke Management Plan.

The primary economic influence zone (Jackson and Josephine Counties) will continue to benefit from harvest of high-value timber and increased recreation use from the Forest. Timber harvest will provide less revenue to local governments due to reduced harvest levels, however this may be offset somewhat by higher bid prices for a limited resource. Employment related to the lumber and wood products industry will also decline. However, employment in the service sectors of the local economy will continue to grow.

Opportunities for the Forest to help enhance the vitality of surrounding communities will occur through a Regional initiative called the Pacific Northwest Strategy. It is envisioned that the Pacific Northwest Strategy will be a new focus of operation for many people, one that empowers Forest Service people and local citizens to look and work beyond the traditional boundaries. At the same time, it reaffirms and emphasizes working with other government agencies, local businesses, and the communities themselves in a spirit of interdependency and cooperation that has always existed at the local Ranger District level. As the Strategy becomes an integral part of doing business, its central focus will be to foster and enhance communication, cooperation, and partnerships.

## THE FOREST IN FIFTY YEARS

By the end of the fifth decade there will be changes evident in the overall character of the landscape within the Forest boundary. Almost all roads needed for resource management will have been constructed. The landscape in parts of the Forest managed for commodity production will have a heavily altered appearance.

Areas with no programmed timber harvest, such as Wilderness, Research Natural Areas, Botanical and Special Interest Areas, and dedicated wildlife and riparian habitats would still remain essentially unchanged except for the effects of fire and the slow

process of natural succession. Sensitive viewsheds will have a natural or near natural appearance.

Areas with programmed timber harvest will be a mosaic of stands of various sizes and ages. Some mature and old-growth stands would remain in these areas, but the majority would now be managed stands ranging from freshly harvested units to saw-timber size. The desired condition is a regulated forest where the stands exist in varying age and size classes and grow at rates such that a high level of yield can be sustained. Trees will be somewhat uniformly spaced and the species present will be representative of the natural diversity of the site.

An essentially completed road system will ensure easy vehicle access to much of the Forest. Developed recreation capacity will keep pace with demand with some additional site expansion and development. Unroaded and Semi-primitive Motorized recreation opportunities will continue to decrease, although much of the development of roadless areas will have occurred in the first decade.

The Upper Rogue Wild and Scenic River will continue to have its outstanding features protected. Due to the increased recreation use along the River, some controls or permits may be necessary to maintain the desired recreation experience.

Although there will not be overcrowded conditions, some sites in Wildernesses may be used to such an extent that management to Primitive WRS standards will be difficult. Permits, or other direct regulatory controls may be necessary to ensure Wilderness objectives are met.

Most of the cultural resource sites on the Forest will be inventoried and protected. Historic buildings and archaeological sites near travelways or campgrounds may be developed for interpretation, and some significant structures may be rehabilitated or restored to their original historic appearance and condition.

The major factor influencing wildlife populations will be the large areas of immature and second growth timber supporting earlier successional stage species. In big-game winter range, forage and cover needs will be met at near optimum conditions. Habitat to support Threatened and Endangered species will be protected in accordance with Recovery Plans. Approximately 65,000 acres of old-growth will

remain. The majority of these acres will be found in Wilderness, Research Natural Areas, Botanical and Special Interest Areas, Backcountry Non-motorized areas, Wild and Scenic River Corridors, dedicated wildlife and riparian habitats, and some sensitive visual corridors.

Habitat for species utilizing dead or downed trees will be provided throughout the Forest, including areas of timber harvest. Snags and logs on the ground will be found in various stages of decay proving habitat and woody debris for nutrient recycling.

Habitat for resident and anadromous fish will be maintained at a fairly constant level following the second decade. Habitat improvement work will be done primarily to replace failing structures and maintain the gains achieved in earlier decades.

Forest soil productivity will be maintained. Water yield and quality will not be significantly reduced or degraded as a result of human activity. High quality domestic water supplies will continue to be provided.

The demand for locatable minerals and mineral materials is likely to increase by the end of the fifth decade. Factors beyond Forest Service control, including new technologies, economic conditions, and new materials developments will have a significant influence on demands. Biological impacts will be kept to acceptable levels through improved mining and reclamation technology and competent administration of the activity.

Special Use permits will increase somewhat, especially for special recreation events. The land exchange program will have achieved a more efficient land ownership pattern as isolated blocks of National Forest ownership will have been exchanged for private inholdings. Additional land line location will occur on a project-needed basis and existing landlines will be maintained to standard.

The principle access roads will be readily identifiable, having paved or gravel surfaces, and will appear suitable for passenger car use. Signs will assist travelers in finding their destination. Some roads will continue to appear less inviting for use. They will look primitive and rough, but acceptable to the more experienced Forest traveler in high clearance vehicles.

Almost 100% of the planned Forest development road system will be complete. All of the arterial and collector roads will be complete, while a few local roads will be needed to complete the overall system. The majority of the 520 miles of road built during the last five decades to meet timber management objectives will be classified as local road facilities.

There will be 937 miles of access roads will be managed to either encourage or accept passenger car use. These roads will be paved or gravel surfaced and will have signing to assist travelers in finding their destinations. There will be 1,610 miles of road open to and managed for high clearance vehicle use. These will look rough and primitive to discourage use by travelers in passenger cars. Some roads will be managed for high clearance vehicle use will be closed seasonally to protect resource values, such as watershed and wildlife habitat.

An additional 1,043 miles of road will be managed for intermittent use. The time between periods of use will generally be in excess of one year. Between uses, all vehicle traffic will be eliminated from these roads with physical barriers. Roads not needed for future management of the Forest will be obliterated.

Because of the continuing need to protect watershed conditions, provide for wildlife needs, and control costs, a portion of the road system will be managed in a self-maintaining condition, with little to no vehicle travel planned. However, some of these partially closed or self-maintaining roads will be in the process of being reopened to accommodate future cycles of timber management activities.

The amount of total suspended particulates (TSP) from the Forest slash burning program will be reduced by 57% from baseline levels. Anticipated TSP levels should not contribute to a corresponding increase in local air pollution problems, as the burning program will be conducted in accordance with the State Smoke Management Plan.

The primary economic influence zone (Jackson and Josephine Counties) will continue to benefit from harvest of timber and increased recreation use from the Forest. While the value of timber harvested may be somewhat lower due to an increase in proportion of smaller second growth timber, the amount of available for harvest will increase and is likely to be offsetting from an economic stand point to local

economies and governments. Continued increases in employment related to service sectors are expected. Employment related to wood products industry may level off or slightly decrease due to improvements in technology, even with an increasing supply of timber.

Each community will have capitalized on its uniqueness and involved its citizens in the development of a desired future. The activities associated with the Pacific Northwest Strategy will continue to support the goals and plans of resource-dependent communities.

## **MANAGEMENT AREAS AND MANAGEMENT STRATEGIES**

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The National Forest land within the Rogue River National Forest has been divided into Management Areas, each with an accompanying Management Strategy. Each Area has different resource goals, opportunities, Standards and Guidelines. In essence, it is a unit of land to be managed to achieve a desired future condition. This is accomplished by the application of its corresponding Management Strategy, or "prescription". The acres of each Management Area are shown in Table 4-3. They are also displayed by "groupings of Management Areas" on the map accompanying this Plan. This map is intended as a general reference map only.

The Management Area maps of record consist of a set of larger scale (1:24,000) computer generated maps on file in the Forest Supervisor's office. Except for Congressionally designated or special administrative boundaries, the Management Area boundaries are not firm lines and do not always follow easily found topographic features, such as major ridges. These boundaries reflect the inventory information gathered at the Forest Planning level and represent a transition from one set of opportunities and constraints to another, with management direction established for each in the form of Management Strategies. Computer mapping characteristics also tend to "square" or "stair-step" boundaries which are intended to be curved. Minor adjustment and refinement of these boundaries will occur as higher intensity inventories are completed at project-level planning. An example might be where a visual resource management line for Management Area 6 - Fore-

ground Retention, was drawn at the inventory level. Slightly more or less area may be found to be visually sensitive at project-level inventory and adjustment would be appropriate. Any significant deviation, however, would require Plan amendment or revision. The boundaries are flexible to assure that the values identified are protected and to incorporate refined information gained from further on-the-ground reconnaissance and project-level planning.

Some Management Areas have acreage suitable for several Management Strategies. The Planning inventory suitability mapping of the various Management Areas overlap in many places for these areas. An example might be where a Management Area for spotted owl overlaps with a Visual Resource Management Area. The Forest established a systematic procedure, known as "masking" <sup>1/</sup>, to establish a "priority ranking" by which a particular Management Area takes precedence over another in order to determine ultimately which single Management Area was assigned in the Plan. Although only one Management Area is allocated to a particular area, the intent is to meet the objectives of another, through allocation to the more restrictive Management Area. For example, while portions of the Congressionally-designated Scenic River might be allocated to a Spotted Owl Management Area, due to the objectives and Standards and Guidelines of the latter, the Scenic River needs would still be met.

The list of "priority rankings" that was generally followed for assignment to Management Areas are shown in descending order:

- Wilderness (13)
- Wild River (10)
- Research Natural Area (25)
- Botanical Area (12)
- Special Interest Area (5)
- Developed Recreation (4)
- Backcountry Non-motorized (3)

- Restricted Watershed (22)
- Spotted Owl Habitat (19)
- Old-Growth (15)
- Restricted Riparian (26)
- Scenic River (11)
- Foreground Retention (6)
- Foreground Partial Retention (7)
- Middle Ground Retention (8)
- Mature (16)
- Middleground Partial Retention (9)
- Big-game Winter Range (14)
- Managed Watershed (23)
- Timber Suitable 2 (21)
- Timber Suitable 1, (20)
- Primary Range (17)
- Secondary Range (18)
- Minimum Management (1)

## **STANDARDS AND GUIDELINES**

This section describes each Management Area and lists the associated Management Strategy's goals, Standards, Guidelines and practices. Standards and Guidelines direct what will and will not occur in a particular area to achieve the desired goal. These multi-resource Standards and Guidelines supplement, but do not replace, direction from Forest Service Manuals, Handbooks and the Regional Guide for the Pacific Northwest Region. They are designed to comply with applicable State and Federal laws. The Management Strategies included in this chapter contain all of the Standards and Guidelines that apply to the Rogue River National Forest.

Some Standards and Guidelines are common to all Management Areas. Those Standards and Guidelines that are specific to a particular Management Area (but not common to all Management Areas) are identified by bold, italicized text.

Table 4-9 displays the types of management practices and activities that are allowed and may occur within each Management Area.

<sup>1/</sup> The "masking ability" of a particular management strategy is its ability to preserve and protect the resource goals and objectives of other management strategies. For example, the Old-Growth Strategy more than adequately protects the resource goals of the Riparian Habitat Strategy. Thus the Old-Growth Strategy masks the Riparian Strategy.

Table 4-9  
MANAGEMENT PRACTICES AND ACTIVITIES  
BY MANAGEMENT AREA

Management Practice or Activity	MA 1	MA 2	MA 3	MA 4	MA 5	MA 6	MA 7	MA 8	MA 9	MA 10	MA 11	MA 12	MA 13	MA 14	MA 15	MA 16	MA 17	MA 18	MA 19	MA 20	MA 21	MA 22	MA 23	MA 24	MA 25	MA 26
Recreation Sites Constr /Recon				X																						
Primitive Recreation Use												X	X													X
Semiprimitive Nonmotorized Recreation Use			X		X					X		X														X
Semiprimitive Motorized Recreation Use		X			X						X	X			X				X							
Roaded Natural Recreation Use	X			X	X	X	X	X	X		X				X		X	X						X		X
Roaded Modified Recreation Use														X		X				X	X		X			
Trail Const./Reconstruction	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Wilderness Recreation Use													X													
Wildlife Habitat Improvement	X	X	X		X	X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
Permitted Grazing Use	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X
Timber Harvest Full Operation Restricted Operation 1/						X	X	X	X		X			X		X				X		X		X		
Reforestation						X	X	X	X		X			X		X				X	X		X	X		
Timber Stand Improvement						X	X	X	X		X			X		X				X	X		X	X		
Fertilization						X	X	X	X		X			X		X				X	X					
Watershed Improvement	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Arterial and Collector Road Construction/Reconstruction	X			X	X	X	X	X	X		X			X	X	X	X	X	X	X	X	X	X	X	X	X
Local Road Construction	X	X		X	X	X	X	X	X		X			X	X	X	X	X	X	X	X	X	X	X	X	X
Local Road Reconstruction	X	X		X	X	X	X	X	X		X			X	X	X	X	X	X	X	X	X	X	X	X	X
Treatment of Activity Fuels	X			X		X	X	X	X		X			X		X				X	X		X	X		X

1/ Restrictions are for opening size and duration and/or longer rotation ages. Other site-specific considerations may cause restrictions to harvest within the full operation MAs

## MANAGEMENT AREAS AND MANAGEMENT STRATEGIES STANDARDS AND GUIDELINES

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MANAGEMENT AREA 6 Foreground Retention	72
MANAGEMENT AREA 7 Foreground Partial Retention	86
MANAGEMENT AREA 8 Middleground Retention	100
MANAGEMENT AREA 9 Middleground Partial Retention	112
MANAGEMENT AREA 10 Wild River	126
MANAGEMENT AREA 11 Scenic River	135
MANAGEMENT AREA 12 Botanical Area	149
MANAGEMENT AREA 13 Wilderness	158
MANAGEMENT AREA 14 Big-Game Winter Range	165
MANAGEMENT AREA 15 Old Growth	180
MANAGEMENT AREA 16 Mature Habitat	191
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MANAGEMENT AREA 18 Secondary Range	215
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MANAGEMENT AREA 20 Timber Suitable 1	236
MANAGEMENT AREA 21 Timber Suitable 2	250
MANAGEMENT AREA 22 Restricted Watershed	265
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Note: Management Areas 2 (Backcountry Motorized) and 24 (Managed Riparian) were described in the FEIS (Appendix D) but were not selected for Plan implementation.



## MANAGEMENT STRATEGY 1

### MINIMUM MANAGEMENT

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#### GOAL

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To maintain National Forest lands in Federal ownership, protect resources, and life, health and safety of incidental users.

#### DESCRIPTION

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This strategy can be applied to any land being administered by the Rogue River National Forest.

The landscape will basically remain unaltered except as a result of fulfilling direction in adjacent areas. The only programmed activities are for protection, public safety, administration and minimum legal requirements.

#### STANDARDS AND GUIDELINES

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##### RECREATION - ROADED NATURAL

1. *Manage the area for at least Maximum Modification Visual Quality Objective. Assess the impacts to visual resources in the project environmental analysis. Specifically address how the visual quality objective will be met.*
2. *Manage any trails that pass through this management area in a manner not in conflict with good stewardship management.*
3. *Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.*
4. Protect Special Dispersed Features, including trails, from adverse impacts until management of the special dispersed feature is addressed in an environmental analysis.
5. Investigate area to inventory archaeological, historical or other cultural resource proper-

ties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.

6. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
7. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
8. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
9. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
10. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.

11. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
12. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.
13. ***Off-road vehicle recreation use on roads, trails or areas is permissible if not in conflict with strategy goals and objectives.***
  - (a) Pre-field review of existing information;
  - (b) Field reconnaissance of the project area;
  - (c) Determination of whether local populations of listed and PETS species will be affected by a project;
  - (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
  - (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

## WILDERNESS

1. This element is not applicable under minimum management.
2. Project plans will assure that wilderness boundaries are not violated.

## WILDLIFE, FISH AND PLANTS

1. Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

2. Management practices for some selected species are as follows:
  - (a) Northern Spotted Owl - Manage this species under the standards and guidelines established in the ROD for the Supplement to the Environmental Impact Statement for an amendment to the Pacific Northwest Regional Guide. In the event that a pair of north-

ern spotted owls are found in an area, consideration will be given to (1) the need to improve the distribution of older forest ecosystems for all associated plant and animal species; (2) providing insight into management of spotted owl habitat areas (SOHA) through experimental habitat manipulation. During the planning and scheduling phase of any project activity that may impact spotted owl habitat, conduct a biological evaluation in order to determine the degree of impact and to provide for protective measures.

- (b) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.

- (c) Goshawk - Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (d) Woodpeckers - (Cavity Nesters) Cavity nesting habitat will be allowed to occur

at natural levels on coniferous forest lands. This should provide 100 percent of the potential population level for cavity nesting species. This may require leaving green trees standing as well, in order to maintain the snags throughout the rotation. Soft snags will not be removed except for protection or human safety. Snags should be uniformly distributed insofar as practical. Land areas containing activities which impact amounts of large woody material (LWM) on the site shall have LWM management prescription(s). The prescription will not only be site specific but will also consider maintenance of LWM in perpetuity. At a minimum, a "moderate" amount of LWM will be left after project completion. The moderate range is 10 to 20 pieces of Class I and II logs per acre and all existing Class III, IV and V logs, except for incidental amounts removed during management activities.

- (e) Resident Trout and Steelhead - Water quality law establishes a level of aquatic resource management that will maintain the Forest's fisheries habitat at a level capable of sustaining or exceeding minimum viable populations for the various species of anadromous and resident fish. Cold water production for both on and off Forest fish needs is identified as a principal objective for the Forest's streams. Maintain existing fish habitat capability and develop fish habitat improvement projects to fully utilize potential smolt production capability of Forest anadromous streams and resident fish in other streams and lakes. Coordinate land management activities with the California Department of Fish and Game and Oregon Department of Fish and Wildlife objectives. Natural debris, plus trees needed for a future supply, will be maintained and managed to 1) enhance stream channel and bank structure so as to protect water quality, and 2) provide structural fish habitat to meet the objectives of small habitat ca-

pability or resident fish populations provided for in the Forest Plan.

- (f) Deer and Elk - Maintain summer range to provide forage, hiding and thermal cover. A restricted operating period from April 1 to June 30 may be imposed in identified deer or elk fawning or calving areas.
- (g) Bald Eagle - Develop a Bald Eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone-All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August 15-blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (h) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

**RANGE**

1. Provide annual permittee plans for livestock distribution and use patterns.
2. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
3. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.
4. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utiliza-

tion standards which are lower or rarely higher when associated with intensive grazing systems and specific vegetation management objectives which will meet resource management objectives and the intent of the management strategy. The standards include cumulative annual use by big game and livestock. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or twig length (e.g. utilization is 50 percent if 50 out of 100 leaders are browsed). Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory condition is anything not meeting satisfactory conditions. Allowable use of available forage (Maximum percent of annual utilization by big game and livestock) is:

**RANGE MANAGEMENT INTENSITY**

	Minimum 1/	Extensive 2/	Intensive 3/
<b>Forested Areas</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Grasslands</b>			
-Satisfactory Condition	50%	55%	60%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Shrublands</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-25%	0-30%	0-35%

- 1/ Minimum - Minimum amount of improvements; simple grazing system.  
 2/ Extensive - Most or all improvements are non-structural; rotation grazing systems used.  
 3/ Wide variety of structural and non-structural improvements; rotation grazing systems used.

**TIMBER**

1. **Rehabilitate areas that have been impacted by catastrophic occurrences.**
2. In seed collections, no seed lot shall be represented by fewer than 15 families of trees of that species, well distributed across the breeding zone. In addition, no family of parent trees shall represent greater than 20 per-

cent of a seed lot. Strive for a natural seed source from a variety of species.

3. **Timber harvest is not programmed and would normally not occur except for the following situations: to eliminate hazards; removal incidental to construction or maintenance of improvements; minor unavoidable inclusions to logical management units; or in the case of natural catastrophe;**

**and research and administrative studies when removal of such timber is not detrimental to achieving the goals of the management area.**

## WATER

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.
2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted;
- (b) Implement and enforce BMPs;
- (c) Monitor to insure that practices are correctly applied as designed;
- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards;
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected;

(f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards;

(g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between: 1) the Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal lands) and 2) the State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.

3. The following requirements will be employed in project implementation when proposed projects may affect streams:

- (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods if needed;
- (b) Consider relation of project to riparian strategy areas (all streams classed as I, II and III are allocated to Strategy 26);
- (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;

- (d) In project planning, consider basin constraint percentages by subwatershed.
- 4. Acquire water rights for development of non-reserved uses.
- 5. Design project water monitoring as appropriate.
- 6. Allow for watershed restoration projects.
- 7. In-stream flows on National Forest lands should be protected through critical analysis of proposed water uses, diversion and transmission applications and renewal of permits.
- 8. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.

#### MINERALS

- 1. Develop and manage new and existing aggregate sources in compliance with approved Rock Resource Development Plan and an approved environmental analysis.
- 2. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
- 3. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
- 4. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.
- 5. Reclamation plans will identify management objectives for disturbed areas and detail the

procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

#### HUMAN AND COMMUNITY DEVELOPMENT

- 1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
- 2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.
- 3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
- 4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
- 5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

#### LANDS

- 1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
- 2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.
- 3. **Use control measures to prohibit livestock access to chemically treated corridors.**

4. Direct applications for electronic sites toward use of sites in the following order:
  - (a) Utilizing residual capacity of existing sites;
  - (b) Develop new sites identified in the Forest-wide Electronic Site Plan.
5. Establish and maintain property boundaries on lands administered by the Forest Service.
- (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils;
- (b) Thirty percent exposure on high or severe erosion hazard soils;
- (c) Fifteen percent exposure on very high or very severe erosion hazard soils.
6. Rehabilitate adversely impacted sites.

## SOILS

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. No more than 10 percent of an activity area should be compacted, puddled or displaced upon completion of project (not including permanent roads or landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices including roads and landings. Permanent recreation facilities or other permanent facilities are exempt.
4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.
5. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory.

## FACILITIES

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:
  - (a) Road and Trail Design Elements,
  - (b) Road and Trail Design Standards,
  - (c) Road Maintenance Levels,
  - (d) Road and Trail Maintenance Plans,
  - (e) Road Traffic Management Strategies,
  - (f) Road Restriction Orders and Traffic Control Devices,
  - (g) Off-Road Vehicle Management Strategies,
  - (h) Travel Maps and
  - (i) Closure Orders.
2. Within sensitive soil resource inventory land types as shown in Management Strategy 21, the following guidelines apply:
  - (a) Geotechnical input is required for road location, design, and management;
  - (b) Temporary roads will be planned, located, surveyed, designed, constructed and operated utilizing the same procedures for reviewing decisions,



selecting design elements and standards, and controlling construction, operation, and maintenance as are used for permanent transportation system roads; and

- (c) Roads which access or traverse these land types may be closed seasonally to prevent resource damage.
- 3. Temporary roads that have been evaluated through the NEPA process are permitted.
- 4. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service. Vegetation shall be reestablished within one year.

#### PROTECTION

- 1. Plan pest control alternatives to be biologically selective, cost beneficial and to have no irreversible adverse effect on the environment.

**2. Provide a low level of prevention activities limited primarily to public contact through patrol and fire prevention signing at campgrounds, rest areas, main access road junctions and information centers.**

- 3. Use prescription fire to obtain desired ecological characteristics of the area.
- 4. Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.
- 5. Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.
- 6. Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.

## MANAGEMENT STRATEGY 3

### BACKCOUNTRY NON-MOTORIZED

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#### GOAL

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Provide semi-primitive non-motorized recreation opportunity with low numbers of users.

#### DESCRIPTION

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This management area provides an environmental setting producing the kinds of recreation experiences that are attainable in large undeveloped areas. These areas can be characterized as providing a feeling of vastness, being predominantly in an unmodified or natural state, remote and have no irreversible evidence of man. The environmental setting often includes a wide diversification of vegetation, terrain and visible landform.

The area will be managed to provide limited social contact and interaction among visitors. Primitive facilities, such as shelters, small camps, signing and a transportation system for visitor's access and use of the area are allowed.

When conflicts exist between backcountry non-motorized and other resources, the conflict will be resolved in favor of the backcountry non-motorized resource, subject to rights under law and regulation.

#### STANDARDS AND GUIDELINES

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##### RECREATION - SEMI-PRIMITIVE NON-MOTORIZED

1. *Manage the area for Retention Visual Quality Objective. Assess the impacts to visual resources in all project environmental analysis. Specifically address how the visual quality objective will be met.*
2. *Provide for dispersed recreation activities such as hiking, back-packing, camping, hunting and fishing.*

3. *Motorized and mechanized vehicle use is generally prohibited in this management area except for approved mining operations. Seasonal motorized use (i.e., snowmobiling) may be permitted in certain portions of this management area.*
4. *Any roads in this management area will be closed, restored to a natural condition or used as a trail.*
5. *Trails will be designed, constructed and maintained to provide access, reduce hazards to visitors and disperse visitors throughout the area in order to minimize contact between individuals and groups while utilizing the total capacity of the area.*
6. *Manage and control public use as necessary to protect recreation resource values and provide for public safety.*
7. *Rehabilitate deteriorated recreation use areas.*
8. *Develop recreation use carrying capacity.*
9. *Protect Special Dispersed Features, including trails, from adverse impacts until management of the special dispersed feature is addressed in an environmental analysis.*
10. *Continue current recreation livestock use restrictions.*
11. *Limit recreation facilities to primitive toilets, shelters, campfire rings and recreation stock control devices.*
12. *Allow powered equipment for trail construction and maintenance.*
13. *Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or*

elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.

14. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
15. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
16. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
17. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
18. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
19. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
20. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

## WILDERNESS

1. This element is not applicable under a backcountry non-motorized management strategy.
2. Project plans will assure that Wilderness boundaries are not violated.

## WILDLIFE, FISH AND PLANTS

1. Permit wildlife and fish projects that do not conflict with Backcountry Non-motorized resource values.
2. Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted

to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

3. Rehabilitate areas that are not meeting wildlife and fish habitat needs.
4. Management practices for some selected species are as follows:
  - (a) Northern Spotted Owl - Manage this species under the standards and guidelines established in the ROD for the Supplement to the Environmental Impact Statement for an amendment to the Pacific Northwest Regional Guide. In the event that a pair of northern spotted owls are found in an area, consideration will be given to (1) the need to improve the distribution of older forest ecosystems for all associated plant and animal species; (2) providing insight into management of spotted owl habitat areas (SOHA) through experimental habitat manipulation. During the planning and scheduling

phase of any project activity that may impact spotted owl habitat, conduct a biological evaluation in order to determine the degree of impact and to provide for protective measures.

- (b) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.
- (c) Goshawk - Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (d) Woodpeckers - (Cavity Nesters) Cavity nesting habitat will be allowed to occur at natural levels on coniferous forest lands. This should provide 100 percent of the potential population level for cavity nesting species. This may require leaving green trees standing as well, in order to maintain the snags throughout the rotation. Soft snags will not be removed except for protection or human safety. Snags should be uni-

formly distributed insofar as practical. Land areas containing activities which impact amounts of large woody material (LWM) on the site shall have LWM management prescription(s). The prescription will not only be site specific but will also consider maintenance of LWM in perpetuity. At a minimum, a "moderate" amount of LWM will be left after project completion. The moderate range is 10 to 20 pieces of Class I and II logs per acre and all existing Class III, IV and V logs, except for incidental amounts removed during management activities.

- (e) Resident Trout and Steelhead - Water quality law establishes a level of aquatic resource management that will maintain the Forest's fisheries habitat at a level capable of sustaining or exceeding minimum viable populations for the various species of anadromous and resident fish. Cold water production for both on and off Forest fish needs is identified as a principal objective for the Forest's streams. Maintain existing fish habitat capability and develop fish habitat improvement projects to fully utilize potential smolt production capability of Forest anadromous streams and resident fish in other streams and lakes. Coordinate land management activities with the California Department of Fish and Game and Oregon Department of Fish and Wildlife objectives. Natural debris, plus trees needed for a future supply, will be maintained and managed to: **1)** enhance stream channel and bank structure so as to protect water quality; and **2)** provide structural fish habitat to meet the objectives of small habitat capability or resident fish populations provided for in the Forest Plan.
- (f) Deer and Elk - Maintain summer range to provide forage, hiding and thermal cover. A restricted operating period from April 1 to June 30 may be imposed in identified deer or elk fawning or calving areas.

- (g) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone-All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone-Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August 15-blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (h) Peregrine Falcon - Develop a Peregrine falcon site management plan for

each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

## RANGE

1. ***Permit livestock grazing on primary and secondary range.***

2. Provide annual permittee plans for livestock distribution and use patterns. Where conflicts cannot be resolved or mitigated, relocation or removal of livestock will be considered.
3. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
4. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.
5. Allow range improvements.
6. Prescribe kind and amount of grass seeding in silviculture prescriptions.
7. ***Outfitter guides using recreation stock will be allowed grazing by permits.***
8. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utilization standards which are lower or rarely higher when associated with intensive grazing systems and specific vegetation management objectives which will meet resource management objectives and the intent of the management strategy. The standards include cumulative annual use by big game and livestock. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or twig length (e.g. utilization is 50 percent if 50 out of 100 leaders are browsed). Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory condition is anything not meeting satisfactory conditions. Allowable use of available forage (Maximum percent of annual utilization by big game and livestock) is:

## RANGE MANAGEMENT INTENSITY

	Minimum 1/	Extensive 2/	Intensive 3/
<b>Forested Areas</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Grasslands</b>			
-Satisfactory Condition	50%	55%	60%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Shrublands</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-25%	0-30%	0-35%

1/ Minimum - Minimum amount of improvements; simple grazing system.

2/ Extensive - Most or all improvements are non-structural; rotation grazing systems used.

3/ Wide variety of structural and non-structural improvements; rotation grazing systems used.

## TIMBER

1. *There will not be any scheduled volume from these areas.*
2. *Timber harvest can only take place if it benefits the recreation resource. The exception will be that timber harvest will be allowed in catastrophic situations such as salvage of fire or insect damage and to prevent the spread of insects and disease to areas managed for other purposes or to meet the management area objectives. Salvage operations will require a project environmental analysis and be designed to minimize impacts on resources. Restoration of such an area will be designed to return it to a natural state.*
3. *In the event of a need for access for salvaging timber from catastrophes, non-ground based systems, such as helicopter, are preferred.*
4. *Firewood gathering and cutting compatible with objectives of the area will be permitted.*
5. Rehabilitate and reconstruct developments and resources that have been impacted by timber sale activities.

6. All silvicultural prescriptions will be approved by a certified silviculturist and reviewed by the District Ranger.
7. The logging system design for timber sales will be reviewed by logging systems specialists designated by the Forest Supervisor. Review for feasibility, silvicultural compatibility and economics.
8. In seed collections, no seed lot shall be represented by fewer than 15 families of trees of that species, well distributed across the breeding zone. In addition, no family of parent trees shall represent greater than 20 percent of a seed lot. Although any given plantation may be planted to a single species, strive for a natural seed source from a variety of species.
9. *All silvicultural prescriptions and logging plans will be reviewed by a landscape architect for feasibility, silvicultural compatibility and the ability to meet backcountry non-motorized recreation objectives.*
10. Utilization standards for timber harvested will meet the standards as stated in the Pacific Northwest Regional Guide, Standards and Guidelines 4-2 and in Table 3-6. Standards in timber sale contracts may vary depending on markets and costs of harvesting.

**WATER**

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.
2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted;
- (b) Implement and enforce BMPs;
- (c) Monitor to insure that practices are correctly applied as designed;
- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards;
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected;
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protec-

tion of beneficial uses. Consider recommending adjustment of water quality standards;

- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between: 1) the Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal lands) and 2) the State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.

3. The following requirements will be employed in project implementation when proposed projects may affect streams:

- (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;
- (b) Consider relation of project to riparian strategy areas (all streams classed as I, II and III are allocated to Strategy 26);
- (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
- (d) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.

4. Acquire water rights for development of non-reserved uses.



5. Design project water monitoring as appropriate.
6. Allow for watershed restoration projects.
7. In-stream flows on National Forest System lands should be protected through critical analysis of proposed water uses, diversion and transmission applications and renewal of permits.
8. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.

## MINERALS

1. **Prohibit development of aggregate sources.**
2. **Prohibit expansion of existing aggregate sources.**
3. **Development of hydro-power is not compatible with this area.**
4. **Rehabilitate aggregate sources when they are closed.**
5. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
6. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
7. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.

8. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

## HUMAN AND COMMUNITY DEVELOPMENT

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.
3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

## LANDS

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.

3. Direct applications for electronic sites toward use of sites in the following order:
  - (a) Utilizing residual capacity of existing sites,
  - (b) Develop new sites identified in the Forest-wide Electronic Site Plan.
4. Insure that proposed projects do not have adverse effect on lands included in active exchanges.
5. Develop rights-of-ways as necessary to implement projects.
6. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.
7. Establish and maintain property boundaries on lands administered by the Forest Service.

## SOILS

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. No more than ten percent of an activity area to be compacted, puddled or displaced upon completion of project (not including permanent roads or landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices, including roads and landings. Permanent recreation facilities or other permanent facilities are exempt.
4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the

project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.

5. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory:
  - (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils;
  - (b) Thirty percent exposure on high or severe erosion hazard soils;
  - (c) Fifteen percent exposure on very high or very severe erosion hazard soils.
6. Rehabilitate adversely impacted sites.

## FACILITIES

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:
  - (a) Road and Trail Design Elements,
  - (b) Road and Trail Design Standards,
  - (c) Road Maintenance Levels,
  - (d) Road and Trail Maintenance Plans,
  - (e) Road Traffic Management Strategies,
  - (f) Road Restriction Orders and Traffic Control Devices,
  - (g) Off-road Vehicle Management Strategies,

- (h) Travel Maps, and
  - (i) Closure Orders.
2. **The following types of transportation facilities are envisioned within this area:**
- (a) **Foot Trails.** Motorized use will be prohibited on these trails.
  - (b) **Access Roads.** While the area is generally set aside for semi-primitive non-motorized recreation, short sections of road may be necessary for highway vehicle access to trailheads and for parking and unloading at trailheads.
3. Existing roads, except for roads accessing trailheads, shall be obliterated and properly drained. Vegetation shall be reestablished within one year, unless a road is converted to a foot trail.
4. Reroute trails as needed.
5. **Primitive facilities may be installed to protect resources, provide for user safety and distribute use to meet management goals. These facilities will be constructed of native materials whenever possible. Facilities envisioned include primitive toilets, shelters, campfire rings, and recreation stock control devices.**
6. Trailhead facilities will be constructed as necessary.
7. **A limited number of helispots may be constructed where natural openings are unavailable.**
8. **Temporary roads may be constructed to support salvage logging. Such roads shall be identified in the project environmental analysis. They shall not be constructed, if it is determined through the environmental analysis, that they can not be obliterated**

**sufficiently to avoid detracting from long term management of the area for semi-primitive non-motorized recreation. The procedures and standards necessary for permanent transportation system road construction may be used to control and mitigate adverse affects of temporary road construction.**

## PROTECTION

1. Plan pest control alternatives to be biologically selective, cost beneficial and to have no irreversible adverse effect on the environment.
2. **Provide a low level of prevention activities limited primarily to public contact through patrol and fire prevention signing at campgrounds, rest areas, main access road junctions and information centers.**
3. Use prescription fire to obtain desired ecological characteristics of the area.
4. Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.
5. Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.
6. Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.
7. **All search and rescue operations will be conducted in accordance with the Rogue River National Forest search and rescue plan. Motorized equipment will be used in search and rescue operations only with Forest Supervisor approval.**

## MANAGEMENT STRATEGY 4

### DEVELOPED RECREATION

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#### GOAL

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Provide quality outdoor recreation opportunities within a forest environment that is modified for visitor use, visitor satisfaction and accommodation of large numbers of visitors.

#### DESCRIPTION

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This strategy can be applied only to those acres designated as suitable for developed recreation. A variety of developments exist or can be constructed to facilitate recreation use of the area. Facilities often will occur in complex arrangements for a variety of purposes within the same site or area. Some will be designed for a large number of people and for special activities, swimming areas, ski areas, picnic areas, viewpoints, resorts, recreation residences, organizational sites, snow play sites and interpretive sites. Developments can occur as a substantial modification of, or as an addition to, the natural environment.

Areas allocated to intensive recreation can be any size, but normally will be 3 to 50 acres. They can be centered on a variety of land features and corresponding recreation opportunities for large numbers of people within a modified natural environment.

Generally the natural environment can be modified to accommodate the visitor, enhance the visitor's experience and maintain a desired vegetative condition.

When conflicts exist between developed recreation management and other resources, the conflict will be resolved in favor of the developed recreation resource, subject to rights under law and regulation.

#### STANDARDS AND GUIDELINES

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##### RECREATION - ROADED NATURAL

1. ***Provide recreation developments at levels two through five (see Glossary for definitions).***
2. ***Manage the area for Modification Visual Quality Objective.***
3. Rehabilitate deteriorated recreation use areas.
4. ***Utilize private enterprise and other public agencies to manage National Forest recreation sites if warranted for efficient operation.***
5. ***Prohibit hunting in this area.***
6. ***Construct and operate facilities and sites to protect capital investments and public health and safety.***
7. ***Off-road vehicles and standard vehicles shall only be permitted on the roads or trails not closed to such use.***
8. ***Use fertilizer and seeding to maintain and enhance recreation sites or trails not closed to motorized use.***
9. ***Recreation residences will not exceed the present level.***
10. ***Assess the impacts to visual resources in all project environmental analysis. Analyze visual values in terms of degradation, maintenance or enhancement.***
11. Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.

12. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.
13. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
14. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
15. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
16. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
17. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
18. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.

19. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

#### WILDERNESS

1. This element is not applicable under an intensive recreation management strategy.
2. Project plans will assure that wilderness boundaries are not violated.

#### WILDLIFE, FISH AND PLANTS

1. ***Emphasis will be on habitat improvement for watchable wildlife and maintaining or improving fish habitat. If significant changes in recreation use are planned because of changes in facilities or access, this will be coordinated with the State's Departments of Fish and Wildlife.***
2. ***Permit wildlife and fish projects that do not conflict with recreation management activities and recreation resource values.***
3. Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

4. Management practices for some selected species are as follows:
  - (a) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees

will be protected until they are no longer usable.

- (b) Resident Trout and Steelhead - Water quality law establishes a level of aquatic resource management that will maintain the Forest's fisheries habitat at a level capable of sustaining or exceeding minimum viable populations for the various species of anadromous and resident fish. Cold water production for both on and off Forest fish needs is identified as a principal objective for the Forest's streams. Maintain existing fish habitat capability and develop fish habitat improvement projects to fully utilize potential smolt production capability of Forest anadromous streams and resident fish in other streams and lakes. Coordinate land management activities with the California Department of Fish and Game and Oregon Department of Fish and Wildlife objectives. Natural debris, plus trees needed for a future supply, will be maintained and managed to 1) enhance stream channel and bank structure so as to protect water quality, and 2) provide structural fish habitat to meet the objectives of small habitat capability or resident fish populations provided for in the Forest Plan.
- (c) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface min-

ing, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

- (d) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing

shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

## RANGE

1. ***Where these lands fall within grazing allotment boundaries, portions with heavy use and development will be excluded from the allotment or classified as unusable range.***
2. ***Developed recreation areas adjacent to rangelands will have livestock control, mainly fences or natural barriers to restrict livestock.***
3. ***Small pasture allotments for individually owned recreation stock will not be allowed in this management area.***
4. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
5. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.

## TIMBER

1. ***Timber will be managed on a non-scheduled basis to meet recreation objectives. Objectives will be to:***
  - (a) ***Reduce risk of public injury from hazardous trees and vegetation.***

- (b) *Maintain or improve visual quality associated with the recreational experience of the area.*
  - (c) *Salvage and prevent catastrophic destruction of the vegetative cover (insects, diseases, fire, wind).*
2. *Tractor logging will be done in a way, such as skidding over the snow, that prevents injuries to root systems and the spread of disease.*
  3. *Fuelwood gathering will normally be limited to cleaning up management activities.*
  4. *Manage vegetation on recreation sites, except for ski areas and snow play areas, to meet the following objectives:*
    - (a) *Understory screening with emphasis on broad leaf species.*
    - (b) *Multi-layered canopies.*
    - (c) *Provide shade on approximately 60 percent of the area.*
    - (d) *Maintain a healthy, vigorous stand.*
    - (e) *Maintain clumpy, irregular spacing.*
    - (f) *Maintain or create a natural looking stand.*
  5. *Manage vegetation on ski and snow play areas to meet the needs of the activities while being compatible with other resource values.*
  6. *Rehabilitate and reconstruct developments and resources that have been impacted by timber sale activities.*
  7. *All silvicultural prescriptions will be approved by a certified silviculturist and reviewed by the District Ranger.*
  8. *The logging system design for timber sales will be reviewed by logging systems specialists designated by the Forest Supervisor. Review for feasibility, silvicultural compatibility and economics.*
  9. *All silvicultural prescriptions and logging plans will be reviewed by a landscape architect for feasibility, silvicultural compatibility and the ability to meet developed recreation objectives.*
  10. *Utilization standards for timber harvested will meet the standards as stated in the Pacific Northwest Regional Guide, Standards and Guidelines 4-2 and in Table 3-6. Standards in timber sale contracts may vary depending on markets and costs of harvesting.*
  11. *In seed collections, no seed lot shall be represented by fewer than 15 families of trees from that species, well distributed across the breeding zone. In addition, no family of parent trees shall represent greater than 20 percent of a seed lot. Although any given plantation may be planted to a single species, strive for a natural seed source from a variety of species.*

#### WATER

1. *Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.*
2. *Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.*

*In cooperation with the States of Oregon and California, the Forest will use the following process:*

- (a) *Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted;*



#### MS 4 - DEVELOPED RECREATION

- (b) Implement and enforce BMPs;
  - (c) Monitor to insure that practices are correctly applied as designed;
  - (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards;
  - (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected;
  - (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards;
  - (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between: 1) the Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal lands) and 2) the State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.
3. The following requirements will be employed in project implementation when proposed projects may affect streams:
- (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;
  - (b) Consider relation of project to riparian strategy areas (all streams classed as I, II and III are allocated to Strategy 26);
  - (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
  - (d) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.
- 4. Acquire water rights for development of non-reserved uses.
  - 5. Design project water monitoring as appropriate.
  - 6. Allow for watershed restoration projects.
  - 7. In-stream flows on National Forest lands should be protected through critical analysis of proposed water uses, diversion and transmission applications and renewal of permits.
  - 8. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.
  - 9. ***Comply with the specific direction for management of each of the municipal watersheds as specified in management agreements between the U.S. Department of Agriculture or Forest and municipalities.***

#### MINERALS

- 1. ***Areas not already withdrawn will be recommended for withdrawal from mineral entry.***

**2. *Prohibit aggregate source development.***

3. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
4. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
5. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.
6. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

**HUMAN AND COMMUNITY DEVELOPMENT**

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.
3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.

4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.
6. ***Consider the needs of the handicapped in the design of facilities.***
7. ***Maintain and promote the HOST program.***
8. ***Promote volunteer programs.***

**LANDS**

1. ***Mark area boundaries.***
2. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
3. Direct applications for electronic sites toward use of sites in the following order:
  - (a) Utilizing residual capacity of existing sites.
  - (b) Developing new sites identified in the Forest-wide Electronic Site Plan.

4. ***Utility corridors are not compatible with this management area.***

**SOILS**

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest

landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.

4. Rehabilitate adversely impacted sites.

## FACILITIES

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:

- (a) Road and Trail Design Elements,
- (b) Road and Trail Design Standards,
- (c) Road Maintenance Levels,
- (d) Road and Trail Maintenance Plans,
- (e) Road Traffic Management Strategies,
- (f) Road Restriction Orders and Traffic Control Devices,
- (g) Off-Road Vehicle Management Strategies,
- (h) Travel Maps and
- (i) Closure Orders.

2. ***Water, sewer, and electrical systems are necessary for many facilities provided. This infrastructure shall be constructed and maintained to provide safe service without detracting from the experience provided at the site.***

3. ***Signing is necessary to provide user information and safe use of sites. The following guidelines apply:***

- (a) ***Traffic signing shall meet applicable standards to provide for safe use by intended vehicles during inclement weather and hours of darkness. Where allowable under those stand-***

***ards, pavement markings will be used in lieu of signs.***

- (b) ***Informational and interpretive signing shall be constructed as necessary to facilitate use of sites.***

4. Temporary roads that have been evaluated through the NEPA process are permitted.

5. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service.

6. ***When new facilities are constructed and when existing facilities are substantially re-constructed, provisions shall be made for use by the physically handicapped.***

7. ***Vegetation shall be established on substantial areas of disturbed ground within one year of completion of construction or other ground disturbing activities.***

## PROTECTION

1. Plan pest control alternatives to be biologically selective, cost beneficial and to have no irreversible adverse effect on the environment.

2. ***Suppress pest outbreaks with a minimum of disturbance to protect developments and/or users. Favor biological and silvicultural treatments where possible.***

3. ***Utilize Integrated Pest Management strategies to prevent unacceptable losses. Monitor trees in developed sites for hazard to facilities and users. Remove hazard trees.***

4. ***Provide a high level of fire prevention activities consisting of public contact through the use of media, including the use of low watt AM radio stations providing information emphasizing fire prevention as a part of the overall message. High visibility prevention activities include signing and personal public contact at all campgrounds and dispersed recreation areas, rest areas, main road junctions, heavily used public***

**access points, information centers and local businesses.**

5. Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.
6. ***Prescribed fire may be used to reduce hazardous fuel concentrations at the periphery of the site and to form fuelbreaks adjacent to high use, high fire occurrence areas. Burning will be planned so as to have a minimum impact on use of the recreation opportunities in the area.***
7. ***Design hazard reduction activities so that they are compatible with management strategy objectives.***
8. ***Slash disposal and other post-sale cleanup activities will be completed in cutting areas prior to the beginning of the next recreation season. Some slash may be left for firewood for recreational use.***
9. Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.
10. Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.
11. ***Recreation sites may be used as fire camps. However, fire camp activities shall not cause site damage. Appoint a resource specialist to advise the Incident Commander and/or Logistics Section Chief on the best use of the site.***

## MANAGEMENT STRATEGY 5

### SPECIAL INTEREST AREAS

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#### GOAL

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Manage and interpret special geological, botanical, zoological, cultural and scenic areas for educational, scientific and public enjoyment purposes.

#### DESCRIPTION

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This strategy can be applied only to those acres designated as suitable for special interest area.

The special interest area consists of areas possessing unusual recreation, biological, cultural, geological and scenic values to be preserved in a substantially natural condition. Areas are primarily large areas of land with special resources. Areas may be classified under CFR 294.1a.

When conflicts exist between the special interest area and other resources, the conflict will be resolved in favor of the special interest area resource, subject to rights under law and regulation.

#### STANDARDS AND GUIDELINES

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##### RECREATION - ROADED NATURAL TO SEMI-PRIMITIVE NON-MOTORIZED

1. ***Manage the area for Retention Visual Quality Objective. Assess the impacts to visual resources in all project environmental analysis. Specifically address how the visual quality objective will be met.***
2. ***Provide for dispersed recreation activities such as hunting, fishing and the gathering of forest products.***
3. ***Manage trails and dispersed occupancy sites in a manner not in conflict with special interest area resource values.***

4. Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.
5. ***Off-road vehicles will be allowed only on designated routes or within areas where their use is compatible with the purpose of the special area.***
6. Rehabilitate deteriorated recreation use areas.
7. ***Develop a Special Interest Area plan for each area.***
8. Protect Special Dispersed Features, including trails, from adverse impacts until management of the special dispersed feature is addressed in an environmental analysis.
9. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.
10. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
11. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.

12. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
13. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
14. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
15. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
16. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

#### WILDERNESS

1. This element is not applicable under a Special Interest Area management strategy.
2. Project plans will assure that wilderness boundaries are not violated.

#### WILDLIFE, FISH AND PLANTS

1. Manipulation of the game and fish habitat will be allowed as long as it maintains a natural appearance and does not conflict with the purpose or objectives of the area.
2. Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife

Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

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mize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

3. Management practices for some selected species are as follows:

- (a) Northern Spotted Owl - Manage this species under the standards and guidelines established in the ROD for the Supplement to the Environmental Impact Statement for an amendment to the Pacific Northwest Regional Guide. In the event that a pair of northern spotted owls are found in an area, consideration will be given to (1) the need to improve the distribution of older forest ecosystems for all associated plant and animal species; (2) providing insight into management of spotted owl habitat areas (SOHA) through experimental habitat manipulation. During the planning and scheduling phase of any project activity that may impact spotted owl habitat, conduct a biological evaluation in order to determine the degree of impact and to provide for protective measures.
- (b) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.
- (c) Goshawk-Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (d) Woodpeckers - (Cavity Nesters) Cavity nesting habitat will be allowed to occur at natural levels on coniferous forest lands. This should provide 100 percent of the potential population level for cavity nesting species. This may require leaving green trees standing as well, in order to maintain the snags throughout the rotation. Soft snags will not be removed except for protection or human safety. Snags should be uniformly distributed insofar as practical. Land areas containing activities which impact amounts of large woody material (LWM) on the site shall have LWM management prescription(s). The prescription will not only be site specific but will also consider maintenance of LWM in perpetuity. At a minimum, a "moderate" amount of LWM will be left after project completion. The moderate range is 10 to 20 pieces of Class I and II logs per acre and all existing Class III, IV and V logs, except for incidental amounts removed during management activities.
- (e) Resident Trout and Steelhead - Water quality law establishes a level of aquatic resource management that will maintain the Forest's fisheries habitat at a level capable of sustaining or exceeding minimum viable populations for the various species of anadromous and resident fish. Cold water production for both on and off Forest fish

needs is identified as a principal objective for the Forest's streams. Maintain existing fish habitat capability and develop fish habitat improvement projects to fully utilize potential smolt production capability of Forest anadromous streams and resident fish in other streams and lakes. Coordinate land management activities with the California Department of Fish and Game and Oregon Department of Fish and Wildlife objectives. Natural debris, plus trees needed for a future supply, will be maintained and managed to 1) enhance stream channel and bank structure so as to protect water quality, and 2) provide structural fish habitat to meet the objectives of small habitat capability or resident fish populations provided for in the Forest Plan.

- (f) Deer and Elk - Maintain summer range to provide forage, hiding and thermal cover. A restricted operating period from April 1 to June 30 will be imposed in identified deer or elk fawning or calving areas.
- (g) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones be-

tween January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (h) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile ra-



dius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

#### RANGE

1. ***Domestic livestock will be permitted to utilize existing forage if the use does not conflict with the purpose of the area.***
2. ***Range improvements and vegetative manipulation will be permitted if they do not conflict with the purpose of the area.***
3. Provide annual permittee plans for livestock distribution and use patterns. Where conflicts cannot be resolved or mitigated, relocation or removal of livestock will be considered.
4. Write range allotment plans to reflect management direction for all lands within the al-

lotment boundary. Allotment planning procedures are documented in FSM 2210.

5. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.
6. Prescribe kind and amount of grass seeding in silviculture prescriptions.
7. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utilization standards which are lower or rarely higher when associated with intensive grazing systems and specific vegetation management objectives which will meet resource management objectives and the intent of the management strategy. The standards include cumulative annual use by big game and livestock. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or twig length (e.g. utilization is 50 percent if 50 out of 100 leaders are browsed). Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory condition is anything not meeting satisfactory conditions. Allowable use of available forage (Maximum percent of annual utilization by big game and livestock) is:

## RANGE MANAGEMENT INTENSITY

	Minimum 1/	Extensive 2/	Intensive 3/
<b>Forested Areas</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Grasslands</b>			
-Satisfactory Condition	50%	55%	60%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Shrublands</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-25%	0-30%	0-35%

1/ Minimum - Minimum amount of improvements; simple grazing system.

2/ Extensive - Most or all improvements are non-structural; rotation grazing systems used.

3/ Wide variety of structural and non-structural improvements; rotation grazing systems used.

## TIMBER

1. *There will not be any scheduled volume from these areas.*
2. *Timber harvest can only take place if it benefits the special interest area. The exception will be that timber harvest will be allowed in catastrophic situations such as salvage of fire or insect damage and to prevent the spread of insects and disease to areas managed for other purposes or to meet the management area objectives. Salvage operations will require a project environmental analysis and be designed to minimize impact on resources. Restoration of such an area will be designed to return it to a natural state.*
3. *In the event of a need for access for salvaging timber from catastrophes, non-ground based systems, such as helicopter, are preferred.*
4. *Firewood cutting is normally not permitted but may be allowed as directed in individual special area plans.*
5. Rehabilitate and reconstruct developments and resources that have been impacted by timber sale activities.
6. All silvicultural prescriptions will be approved by a certified silviculturist and reviewed by the District Ranger.
7. The logging system design for timber sales will be reviewed by logging systems specialists designated by the Forest Supervisor. Review for feasibility, silvicultural compatibility and economics.
8. *All silvicultural prescriptions and logging plans will be reviewed by a landscape architect for feasibility, silvicultural compatibility and the ability to meet special interest area objectives.*
9. Utilization standards for timber harvested will meet the standards as stated in the Pacific Northwest Regional Guide, Standards and Guidelines 4-2 and in Table 3-6. Standards in timber sale contracts may vary depending on markets and costs of harvesting.
10. In seed collections, no seed log shall be represented by fewer than 15 families of trees from that species, well distributed across the breeding zone. In addition, no family of parent trees shall represent greater than 20 percent of a seed lot. Although any given plantation may be planted to a single species, strive for a natural seed source from a variety of species.

## WATER

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.
2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted;
- (b) Implement and enforce BMPs;
- (c) Monitor to insure that practices are correctly applied as designed;
- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards;
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected;
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protec-

tion of beneficial uses. Consider recommending adjustment of water quality standards;

- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between: 1) the Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and 'Attachments A and B' referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal lands) and 2) the State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.

3. The following requirements will be employed in project implementation when proposed projects may affect streams:

- (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods if needed;
- (b) Consider relation of project to riparian strategy areas (all streams classed as I, II and III are allocated to Strategy 26);
- (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
- (d) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.

4. Acquire water rights for development of non-reserved uses.

5. Design project water monitoring as appropriate.
6. Allow for watershed restoration projects.
7. In-stream flows on National Forest lands should be protected through critical analysis of proposed water uses, diversion and transmission applications and renewal of permits.
8. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.
9. ***Comply with the specific direction for management of each of the municipal watersheds as specified in management agreements between the U.S. Department of Agriculture or Forest and municipalities.***

#### MINERALS

1. ***Prohibit aggregate source development.***
2. ***Prohibit expansion of existing aggregate sources.***
3. ***Mineral withdrawal will be considered on an area-by-area basis.***
4. ***Rehabilitate aggregate sources when they are closed.***
5. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
6. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
7. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed

areas are reclaimed insofar as practicable to a productive condition.

8. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

#### HUMAN AND COMMUNITY DEVELOPMENT

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.
3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

#### LANDS

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received.

Analyze any additional corridors with an environmental analysis.

3. Direct applications for electronic sites toward use of sites in the following order:
  - (a) Utilizing residual capacity of existing sites.
  - (b) Developing new sites identified in the Forest-wide Electronic Site Plan.
4. Insure that proposed projects do not have adverse effect on lands included in active exchanges.
5. Develop rights-of-ways as necessary to implement projects.
6. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.
7. Establish and maintain property boundaries on lands administered by the Forest Service.

## SOILS

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. No more than ten percent of an activity area to be compacted, puddled or displaced upon completion of project (not including permanent roads or landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices, including roads and landings. Permanent recreation facilities or other permanent facilities are exempt.
4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.

5. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory:
  - (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils;
  - (b) Thirty percent exposure on high or severe erosion hazard soils;
  - (c) Fifteen percent exposure on very high or very severe erosion hazard soils.
6. Rehabilitate adversely impacted sites.

## FACILITIES

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:
  - (a) Road and Trail Design Elements,
  - (b) Road and Trail Design Standards,
  - (c) Road Maintenance Levels,
  - (d) Road and Trail Maintenance Plans,
  - (e) Road Traffic Management Strategies,
  - (f) Road Restriction Orders and Traffic Control Devices,
  - (g) Off-Road Vehicle Management Strategies,
  - (h) Travel Maps and
  - (i) Closure Orders.
2. **Roads necessary for this strategy will be constructed and maintained to accommodate safe use by typical vehicles used by recreationists to enjoy the special interest available in the area. In the event of catastrophe or other special situation where heavy truck use is necessary, traffic restric-**

**tions will be required to exclude recreation vehicles.**

3. Within sensitive soil resource inventory land types, as shown in Management Strategy 21, the following guidelines apply:
  - (a) Geotechnical input is required for road location, design, and management;
  - (b) Temporary roads will be planned, located, surveyed, designed, constructed, and operated utilizing the same procedures for reviewing, decisions, selecting design elements and standards, and controlling construction, operation, and maintenance as are used for permanent transportation system roads;
  - (c) Roads which access or traverse these land types may be closed seasonally to prevent resource damage.
4. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service. Vegetation shall be reestablished within one year.
5. **Reroute roads and trails as needed.**
6. **Facilities may be installed to protect resources, provide for user safety and distribute use to meet management goals. These facilities will be constructed of native materials whenever possible. Facilities envisioned include primitive toilets, shelters, recreation stock control devices and enclosures, primitive motorized camp-sites, and vehicle control devices.**
  - (a) **A limited number of helispots may be constructed where natural openings are unavailable.**
  - (b) Temporary roads that have been evaluated through the NEPA process are permitted.
  - (c) **Temporary roads may be constructed to support salvage logging. Such roads shall be identified in the**

**project environmental analysis. They shall not be constructed, if it is determined through the environmental analysis, that they cannot be obliterated sufficiently to avoid detracting from long term special interest management of the area. The procedures and standards necessary for permanent transportation system road construction may be used to control and mitigate adverse affects of such temporary road construction.**

## PROTECTION

1. Plan pest control alternatives to be biologically selective, cost beneficial and to have no irreversible adverse effect on the environment.
2. **Provide a low level of prevention activities limited primarily to public contact through patrol and fire prevention signing at campgrounds, rest areas, main access road junctions and information centers.**
3. Use prescription fire to obtain desired ecological characteristics of the area.
4. Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.
5. **Hazard reduction activities will be compatible with management area objectives.**
  - (a) **Design fuel breaks to meet the natural characteristics of the area.**
  - (b) **Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.**
  - (c) **Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.**

## MANAGEMENT STRATEGY 6

### FOREGROUND RETENTION

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#### **GOAL**

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Maintain and/or enhance scenery in Foreground Retention areas.

#### **DESCRIPTION**

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This strategy can be applied only to those acres designated as suitable for foreground.

Provide a landscape where management activities are not visually evident. Retain the characteristic landscape. Only repeat the form, line, color and texture which are frequently found in the characteristic landscape. Changes in size, amount, intensity, direction, pattern, etc., of a management activity should not be evident.

When conflicts exist between scenery and other resources, the conflict will be resolved in favor of scenery, subject to rights under law and regulation.

This area does not include class I, II and III streams, or their associated riparian zones.

#### **STANDARDS AND GUIDELINES**

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##### **RECREATION - ROADED NATURAL**

1. ***Manage the area for Retention Visual Quality Objective. Catastrophic occurrences may dictate a need for short term departure from Retention. Assess the impacts to visual resources in all project environmental analysis. Specifically address how the visual quality objective will be met.***
2. ***Design management activities to meet visual quality objective when viewed from travel routes and critical view points.***
3. ***Design all projects with assistance of a landscape architect.***

4. ***Correct unacceptable form, line, color or texture as a result of management activities either during the operation or within one year after completion of the activity.***
5. Rehabilitate deteriorated recreation use areas.
6. ***Provide for dispersed recreation activities such as hunting, fishing, gathering of forest products and scenic driving.***
7. ***Manage trails and dispersed occupancy sites in a manner not in conflict with visual resource values.***
8. Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.
9. ***Off-road vehicle use is permitted if evidence of use meets the visual quality objective. When this activity begins to adversely impact the visual qualities of these areas, restrictions will be imposed on off-road vehicle activities. These restrictions may include prohibition on types of equipment used, seasonal closures or total closures.***
10. ***Viewshed plans will be prepared to provide project level direction for implementing the Forest Plan.***
11. Protect Special Dispersed Features, including trails, from adverse impacts until management of the special dispersed feature is addressed in an environmental analysis.
12. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project

areas will be guided by the Forest's cultural resource inventory strategy.

13. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
14. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
15. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
16. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
17. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
18. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
19. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

## WILDERNESS

1. This element is not applicable under a scenic views management strategy.
2. Project plans will assure that Wilderness boundaries are not violated.

## WILDLIFE, FISH AND PLANTS

1. Permit wildlife and fish projects that do not conflict with visual resource values.
2. Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

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- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
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If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

3. Management practices for some selected species are as follows:

- (a) Northern Spotted Owl - Manage this species under the standards and guidelines established in the ROD for the Supplement to the Environmental Impact Statement for an amendment to the Pacific Northwest Regional Guide. In the event that a pair of northern spotted owls are found in an area, consideration will be given to (1) the need to improve the distribution of older forest ecosystems for all associated plant and animal species; (2) providing insight into management of spotted owl habitat areas (SOHA) through experimental habitat manipulation. During the planning and scheduling phase of a timber sale or any other project activity that may impact spotted owl habitat, conduct a biological

evaluation in order to determine the degree of impact and to provide for protective measures.

- (b) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.
- (c) Goshawk-Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (d) Woodpeckers - (Cavity Nesters) Leave sufficient wildlife trees (hard snags or green trees designated to become snags) in coniferous forest lands to provide for at least 60 percent of the potential population levels for cavity nesting species. The distribution of numbers and size class necessary to meet 60 percent per 100 acres is as follows:

## Siskiyou and Cascade Mixed Conifer

<u>Size</u>	<u>Number</u>
15+	179
17+	36
25+	3
Total	218

## Siskiyou and Cascade True Fir

<u>Size</u>	<u>Number</u>
15+	143
17+	11
25+	3
Total	157

Species distribution should be representative of the site's original stand. Trees selected for retention should maximize use of the stand's cull component. If the proper number and size of trees do not exist in the stand to be treated, select the proper number from the next lower size class. (i.e. if 25" trees are not available go to 17" trees). Material that satisfies the need for down woody material recruitment will come from existing down material, down woody material that is the result of a silvicultural treatment and from the trees that are designated to meet standing wildlife tree requirements. The long-term goal for large woody material (LWM) is 10 to 20 pieces of class I and II logs per acre, and all existing class III, IV and V logs except for incidental amounts removed during management activities. Additional green merchantable trees will not be designated unless none of the other categories exist. The expected life span of snags or dead trees in mixed conifer working groups is 30 years and in true fir working groups the life span is 20 years. The silvicultural prescription will describe the total number, size and species of wildlife trees that will be required through the next full rotation of the stand being treated. Wildlife and down woody material requirement will be included as part of the vegetative (silvicultural) prescription for each stand. Information for the

prescription will be provided by a wildlife biologist based on site by site needs. A certified silviculturist will validate the data and include it in the preparation of the final vegetative (silvicultural) prescription that implements all the interdisciplinary requirements. The logging system required, reforestation needs, slash disposal requirements and site preparation needs should be compatible with the wildlife tree distribution needs. Primary cavity excavator habitat will be met on areas no larger than 60 acres including adjacent harvest units. The intent being to provide well distributed habitat and allow adjacent stands to provide the needed wildlife trees for past harvest units where the adjacent stands plus harvest units do not exceed 60 acres. Where past harvest units were very large, the adjacent stands within 900 feet would be managed at higher wildlife tree levels to bring the overall area to the 40 percent level. When the past harvest units were of such magnitude that the above methods cannot bring the entire area to the 40 percent level, the remaining shortage will not be provided for, but will be recorded and tracked for purposes of monitoring the forest plan. Selection of wildlife trees to make up for past deficits will meet the same selection criteria as in newly treated stands. Green merchantable trees will not be girdled to create wildlife snags, regardless of the situation, until (5-7) years after project completion (sale closure), in order to capture any mortality that may occur during that time. Operational accomplishment will be included as a monitoring item in the forest plan.

- (e) Deer and Elk - Maintain summer range to provide hiding and thermal cover. Timber harvesting and/or thinning should provide hiding and thermal cover between treatment areas and roads with continuous vehicle use. Hiding cover should be dense enough to hide 90 percent of a deer or

elk from view at 200 feet. Hiding cover need not be continuous but gaps between screens should not exceed one-quarter of a mile. A restricted operating period from April 1 to June 30 may be imposed in identified deer or elk fawning or calving areas.

- (f) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330-foot radius around the nest and the secondary zone to be a 660-foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (g) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

**RANGE**

1. ***Livestock grazing will be allowed.***
2. Provide annual permittee plans for livestock distribution and use patterns. Where conflicts cannot be resolved or mitigated, relocation or removal of livestock will be considered.
3. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
4. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.
5. Allow range improvements that meet Retention Visual Quality Objectives.
6. ***Allow increases in permitted grazing use to capture increases in transitory range***

***where compatible with Foreground Retention objectives.***

7. Prescribe kind and amount of grass seeding in silviculture prescriptions.
8. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utilization standards which are lower or rarely higher when associated with intensive grazing systems and specific vegetation management objectives which will meet resource management objectives and the intent of the management strategy. The standards include cumulative annual use by big game and livestock. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or twig length (e.g. utilization is 50 percent if 50 out of 100 leaders are browsed). Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory condition is anything not meeting satisfactory conditions. Allowable use of available forage (Maximum percent of annual utilization by big game and livestock) is:

## RANGE MANAGEMENT INTENSITY

	Minimum 1/	Extensive 2/	Intensive 3/
<b>Forested Areas</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Grasslands</b>			
-Satisfactory Condition	50%	55%	60%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Shrublands</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-25%	0-30%	0-35%

- 1/ Minimum - Minimum amount of improvements; simple grazing system.  
 2/ Extensive - Most or all improvements are non-structural; rotation grazing systems used.  
 3/ Wide variety of structural and non-structural improvements; rotation grazing systems used.

## TIMBER

1. Timber harvest will be scheduled in this management strategy.
2. When trees are cut for timber production objectives, the cutting shall be made in a way to assure that technology and knowledge exist to adequately restock the site within five years after final harvest (36 CFR 219.27(c)(3)).
3. Timber harvesting shall only occur on lands classified as suitable for timber production except for salvage sales, sales necessary to protect other multiple-use values or activities that meet other objectives if the Forest Plan establishes that such actions are appropriate (36 CFR 219.27(c)(1)).
4. Treat timber stands to achieve desired visual characteristics through the following practices:
  - (a) Site preparation - chemical, mechanical, biological and manual;
  - (b) Tree improvement (genetics);
  - (c) Reforestation by planting. Random natural seedlings will count towards reaching desired stocking;

- (d) Growing stock protection from animals, insects and diseases;
- (e) Release and weeding - chemical, mechanical, biological and manual;
- (f) Precommercial thinning;
- (g) Commercial thinning;
- (h) Salvage mortality as necessary;
- (i) Final Harvest - even-aged silvicultural system using shelterwood, seed tree or clearcut methods. The shelterwood method will probably be the most common; however, selection will be determined by the environmental assessment process and documented in a site-specific silvicultural prescription.

- \* (j) *Pruning*
5. The selection of the appropriate silvicultural system will be guided by the following criteria:
    - (a) Must permit the production of sufficient volume of marketable trees to permit utilization of all trees which meet utilization standards and are designated for harvest.

- (b) Must permit the use of an available and acceptable logging method.
  - (c) Must be capable of providing special conditions when required by critical soil conditions or needed to achieve management objectives.
  - (d) Must permit control of existing or potential vegetation to a degree that establishment of numbers of trees and rates of growth as identified in site-specific silvicultural prescriptions for harvest areas can be achieved.
  - (e) Must promote stand structure and species composition which avoids serious risk of damage from mammals, insects, disease or wildfire and will allow treatment of existing insect, disease or fuel conditions.
  - (f) Must meet resource and vegetation management objectives.
6. **Utilize uneven-aged management if specific site and vegetation characteristics lend the area to this type of management.**
7. **Manage the area for an overall mix of size classes of trees for visual as well as biological diversity.. The following mix of size class types can be used as a guideline. The specific distribution will be determined in a project implementation plan.**
- | <u>Size Class</u> | <u>% of Land Area</u> |
|-------------------|-----------------------|
| 30"-36"           | 30                    |
| 22"-30"           | 30                    |
| 16"-22"           | 15                    |
| 9"-16"            | 15                    |
| 0"- 9"            | 10                    |
8. **Emphasize the viewing of large diameter Douglas-fir, ponderosa pine, sugar pine or Shasta fir species. Emphasize other species where appropriate. Plan for dispersal of target trees to give the overall character of large trees to the whole area.**
9. **Design "created openings" to meet the visual quality objective. The size of a created opening could vary from less than 1/4 acre**
- in the immediate foreground(generally within 200 feet of a travel route) to 3 acres in the distant foreground. The size of created openings adjacent to trails generally will be much less than this.**
10. **The timber harvested area will no longer be considered a created opening for visual purposes when trees are 20 feet in height.**
11. **Provide a variety of views into the forest and the adjacent landscape. Provide irregular shaped openings to create the overall impression of an undisturbed landscape. Emphasize a mix of deciduous shrub and ground cover species such as dogwood or vine maple.**
12. **As a guideline, no more than 3.3 percent of the viewed area per decade, or 6.6 percent at any one time, will be in a created opening condition.**
13. **Permit created openings along a route of not more than 600 ft. per mile and not more than 300 feet continuously.**
14. **Utilize irregular spacing when thinning.**
15. Create irregular patterns with plantings with a blend of tree species, approximating natural stands. In seed collections no seed lot shall be represented by fewer than 15 families of trees of that species, well distributed across the breeding zone. In addition, no family of parent trees shall represent greater than 20 percent of a seed lot. Although any given plantation may be planted to a single species, strive for a natural seed source from a variety of species.
16. Emphasize a high edge per acre ratio on all even-aged units.
17. Fuelwood and other miscellaneous forest products:
- (a) Make miscellaneous forest products such as poles, posts, boughs, Christmas trees, house-logs, etc., available on an as needed basis consistent with the

- resource objectives of this management area.
  - (b) Provide access to potential fuelwood when appropriate. Bring fuelwood to convenient points in timber sale or thinning areas. Utilize appropriate timber sale clauses or modify fuels management prescriptions to meet this objective.
  - (c) Allow commercial fuelwood contracts for slash disposal, thinning and site preparation.
  - (d) Open slash areas to fuelwood gathering prior to traditional disposal methods.
  - (e) Leave slash as a fuelwood source where there is no conflict with resource activity.
  - (f) Consider using the fuelwood program as a means to meet silvicultural objectives in appropriate areas, such as low productivity stands or other stands prior to reaching commercial size.
  - (g) Consider the season of year and access when implementing a fuelwood program. The public will be encouraged to burn dry wood.
  - (h) Document fuelwood availability for public uses in project environmental analysis.
  - (i) Be responsive to the needs of the public for fuelwood.
  - (j) Create a Forest fuelwood and miscellaneous products policy to include fuelwood inventory.
18. ***Stumps visible from and within 200 feet of critical travel routes or viewpoints will be a maximum height of 12 inches on the high side of the stump.***
  19. Rehabilitate and reconstruct developments and resources that have been impacted by timber sale activities.
  20. ***All silvicultural prescriptions will be approved by a certified silviculturist and reviewed by the District Ranger and Landscape Architect.***
  21. Reforestation, precommercial thinning and release to meet recommended stocking will be addressed with site specific silvicultural prescriptions.
  22. The logging system design for timber sales will be reviewed by logging systems specialists and landscape architect. Review for feasibility, silvicultural compatibility and economics.
  23. Utilization standards for timber harvested will meet the standards as stated in the Pacific Northwest Regional Guide, Standards and Guidelines 4-2 and in Table 3-6. Standards in timber sale contracts may vary depending on markets and costs of harvesting.

## UTILIZATION STANDARDS

Type Tree	Minimum dbh.	Minimum Top dib.
First Decade Existing mature trees, except lodgepole pine (first and future decades)	9	6
Existing commercial thinning size trees and lodgepole pine	7	4
Future Decades All species, except surviving stands of first decade existing mature.	7	4

## WATER

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.
2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.
- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.

- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.
- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between: 1) the Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and



Grazing Activities on Federal lands) and 2) the State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.

3. The following requirements will be employed in project implementation when proposed projects may affect streams:
  - (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;
  - (b) Consider relation of project to riparian strategy areas (all streams classed as I, II and III are allocated to Strategy 26);
  - (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
  - (d) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.
4. Acquire water rights for development of non-reserved uses.
5. Design project water monitoring as appropriate.
6. Allow for watershed restoration projects.
7. In-stream flows on National Forest lands should be protected through critical analysis of proposed water uses, diversion and transmission applications, and renewal of permits.
8. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.
9. Comply with the specific direction for management of each of the municipal water-

sheds as specified in management agreements between the U.S. Department of Agriculture or Forest and municipalities.

## MINERALS

1. **Manage existing aggregate sources in compliance with approved Rock Resource Development Plan and an environmental analysis.**
2. **Rehabilitate aggregate source sites to meet Retention Visual Quality Objective.**
3. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
4. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
5. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.
6. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

## HUMAN AND COMMUNITY DEVELOPMENT

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to re-

ceive from Forest programs. Techniques to increase awareness and participation will be used.

3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

## LANDS

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.
3. Direct applications for electronic sites toward use of sites in the following order:
  - (a) Utilizing residual capacity of existing sites.
  - (b) Develop new sites identified in the Forest-wide Electronic Site Plan.
4. Insure that proposed projects do not have adverse effect on lands included in active exchanges.
5. Develop rights-of-ways as necessary to implement projects.

6. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.
7. Establish and maintain property boundaries on lands administered by the Forest Service.

## SOILS

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. No more than 10 percent of an activity area to be compacted, puddled or displaced upon completion of a project (not including permanent roads or landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices, including roads and landings. Permanent recreation facilities or other permanent facilities are exempt.
4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.
5. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type as defined in the Rogue River National Forest Soil Resource Inventory:
  - (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils.
  - (b) Thirty percent exposure on high or severe erosion hazard soils.

- (c) Fifteen percent exposure on very high or very severe erosion hazard soils.
- 6. Rehabilitate adversely impacted sites.

## FACILITIES

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:
  - (a) Road and Trail Design Elements,
  - (b) Road and Trail Design Standards,
  - (c) Road Maintenance Levels,
  - (d) Road and Trail Maintenance Plans,
  - (e) Road Traffic Management Strategies,
  - (f) Road Restriction Orders and Traffic Control Devices,
  - (g) Off-Road Vehicle Management Strategies,
  - (h) Travel Maps and
  - (i) Closure Orders.
2. ***The road system necessary for management of this area will be planned and constructed to minimize the number of intersections with the State Highway, County Road, or Forest Arterial Road along which the scenic management corridor is located. Where possible, local road access for logging will be from the "back side" using spurs from road systems parallel to the Highway.***
3. ***Landscape architect and traffic engineering input will be required for design and operation of intersections of Forest roads with the Highway.***
4. ***Where it is necessary to close a Forest route intersecting the Highway on a sea-***

***sonal or intermittent basis, the closure shall be designed to achieve the visual quality objective as viewed from the Highway.***

5. Within sensitive soil resource inventory land types, as shown in Management Strategy 21, the following guidelines apply:
  - (a) Geotechnical input is required for road location, design, and management.
  - (b) Temporary roads will be planned, located, surveyed, designed, constructed, and operated utilizing the same procedures for reviewing, decisions, selecting design elements and standards, and controlling construction, operation, and maintenance as are used for permanent transportation system roads.
  - (c) Roads which access or traverse these land types may be closed seasonally to prevent resource damage.
6. Temporary roads that have been evaluated through the NEPA process are permitted.
7. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service. Vegetation shall be reestablished within one year.
8. Power lines and other utilities shall be constructed, operated, and maintained to achieve the visual quality objective as viewed from the Highway.

## PROTECTION

1. Plan pest control alternatives to be biologically selective, cost beneficial and to have no irreversible adverse effect on the environment.
2. ***Suppress pests when outbreaks threaten managed resources and/or users. Use methods that minimize site disturbance.***

3. *Utilize Integrated Pest Management strategies to prevent unacceptable damage in visual corridors. Manual, mechanical and cultural methods are emphasized.*
4. *Provide a high level of fire prevention activities consisting of public contact through the use of media, including the use of low watt AM radio stations providing information emphasizing fire prevention as a part of the overall message. High visibility prevention activities include signing and personal public contact at all campgrounds and dispersed recreation areas, rest areas, main road junctions, heavily used public access points, information centers and local businesses.*
5. *Prescription fire is not generally compatible with this management area.*
6. *Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.*
7. *Hazard reduction activities will be compatible with management area objectives.*
8. *Design fuelbreaks to meet the natural characteristics of the area.*
9. *Integrate fuelbreak construction with vegetation management projects.*
10. Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.
11. Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.

## MANAGEMENT STRATEGY 7

### FOREGROUND PARTIAL RETENTION

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#### GOAL

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Manage scenic resources to meet Partial Retention in the foreground.

#### DESCRIPTION

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This strategy can be applied only to those acres designated as suitable for foreground.

Landscapes seen from selected travel routes and use areas are managed so that, to the casual observer, results of activities are evident and are visually subordinate to the natural landscape. A management system is adopted which introduces some alteration of standard vegetation treatments, different scheduling of treatments, and with logging systems, debris disposal and silvicultural management practices designed to accomplish visual management objectives.

Activities may repeat form, line, color or texture common to the characteristic landscape but changes in their size, amount, intensity, direction, pattern, etc., remain visually subordinate to the characteristic landscape.

When conflicts exist between visual and other resources, the conflict will be resolved in favor of the visual resource, subject to rights under law and regulation.

This area does not include class I, II and III streams, or their associated riparian zones.

#### STANDARDS AND GUIDELINES

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##### RECREATION - ROADED NATURAL

1. *Manage the area for Partial Retention Visual Quality Objective. Catastrophic occurrences may dictate a need for short-term departure from Partial Retention Visual Quality Objective. Blend and shape regeneration openings with the natural terrain to the extent possible. Assess the impacts to visual resources in all project environmental analysis. Specifically address how the visual quality objective will be met.*

2. *Design management activities to meet visual quality objective when viewed from travel routes and critical view points.*
3. *Design projects having high visual impacts with assistance of a landscape architect.*
4. *Correct unacceptable form, line, color or texture as a result of management activities either during the operation or within two years after completion of the activity.*
5. *Rehabilitate deteriorated recreation use areas.*
6. *Provide for dispersed recreation activities such as hunting, fishing, gathering of forest products and scenic driving.*
7. *Manage trails and dispersed occupancy sites in a manner not in conflict with visual resource values.*
8. *Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.*
9. *Off-road vehicle use is permitted if evidence of use meets the visual quality objective. When this activity begins to adversely impact the visual qualities of these areas, restrictions will be imposed on off-road vehicle activities. These restrictions may include prohibition on types of equipment used, seasonal closures or total closures.*
10. *Viewshed plans will be prepared to provide project level direction for implementing the Forest Plan.*

11. Protect Special Dispersed Features, including trails, from adverse impacts until management of the special dispersed feature is addressed in an environmental analysis.
  12. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.
  13. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
  14. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
  15. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
  16. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
  17. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
  18. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
  19. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.
- WILDERNESS**
1. This element is not applicable under a Scenic Views management strategy.
  2. Project plans will assure that Wilderness boundaries are not violated.
- WILDLIFE, FISH AND PLANTS**
1. Permit wildlife and fish projects that do not conflict with visual resource values.
  2. Existing and Proposed Endangered, Threatened and Sensitive Species
- Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.
- Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.
- Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

3. Management practices for some selected species are as follows:

- (a) Northern Spotted Owl - Manage this species under the standards and guidelines established in the ROD for the Supplement to the Environmental Impact Statement for an amendment to the Pacific Northwest Regional Guide. In the event that a pair of north-

ern spotted owls are found in an area, consideration will be given to (1) the need to improve the distribution of older forest ecosystems for all associated plant and animal species; (2) providing insight into management of spotted owl habitat areas (SOHA) through experimental habitat manipulation. During the planning and scheduling phase of any project activity that may impact spotted owl habitat, conduct a biological evaluation in order to determine the degree of impact and to provide for protective measures.

- (b) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.
- (c) Goshawk-Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (d) Woodpeckers - (Cavity Nesters) Leave sufficient wildlife trees (hard

snags or green trees designated to become snags) in coniferous forest lands to provide for at least 60 percent of the potential population levels for cavity nesting species. The distribution of numbers and size class necessary to meet 60% per 100 acres is as follows:

Siskiyou and Cascade Mixed Conifer

<u>Size</u>	<u>Number</u>
15+	179
17+	36
25+	3
Total	218

Siskiyou and Cascade True Fir

<u>Size</u>	<u>Number</u>
15+	143
17+	11
25+	3
Total	157

Species distribution should be representative of the site's original stand. Trees selected for retention should maximize use of the stand's cull component. If the proper number and size of trees do not exist in the stand to be treated, select the proper number from the next lower size class. (i.e. if 25" trees are not available go to 17" trees). Material that satisfies the need for down woody material recruitment will come from existing down material, down woody material that is the result of a silvicultural treatment and from the trees that are designated to meet standing wildlife tree requirements. The long-term goal for large woody material (LWM) is 10 to 20 pieces of class I and II logs per acre, and all existing class III, IV and V logs except for incidental amounts removed during management activities. Additional green merchantable trees will not be designated unless none of the other categories exist. The expected life span of snags or dead trees in mixed conifer working groups is 30 years and in true fir working groups the life

span is 20 years. The silvicultural prescription will describe the total number, size and species of wildlife trees that will be required through the next full rotation of the stand being treated. Wildlife and down woody material requirement will be included as part of the vegetative (silvicultural) prescription for each stand. Information for the prescription will be provided by a wildlife biologist based on site by site needs. A certified silviculturist will validate the data and include it in the preparation of the final vegetative (silvicultural) prescription that implements all the interdisciplinary requirements. The logging system required, reforestation needs, slash disposal requirements and site preparation needs should be compatible with the wildlife tree distribution needs. Primary cavity excavator habitat will be met on areas no larger than 60 acres including adjacent existing harvest units. The objective is to provide well distributed habitat, and to allow adjacent stands to provide the needed wildlife trees for past harvest units where current standards were not met. Where past harvest units were very large, the adjacent stands within 900 feet will be managed at higher wildlife tree levels to bring the overall area to at least the 40 percent level. When the past harvest units were of such magnitude that the above methods cannot bring the entire area to the 40 percent level, the remaining shortage will not be provided for, but will be tracked for the purpose of monitoring the forest plan. Selection of wildlife trees to make up for past deficits will meet the same selection criteria as in newly treated stands. Green merchantable trees will not be girdled to create wildlife snags, regardless of the situation, until (5-7) years after project completion (sale closure), in order to capture any mortality that may occur during that time. Operational accomplishment will be included as a monitoring item in the forest plan.



- (e) Deer and Elk - Maintain summer range to provide forage, hiding and thermal cover at or above the 20 percent level. Timber harvesting and/or thinning should provide hiding and thermal cover between treatment areas and roads with continuous vehicle use. Hiding cover should be dense enough to hide 90 percent of a deer or elk from view at 200 feet. Hiding cover need not be continuous but gaps between screens should not exceed one-quarter of a mile. A restricted operating period from April 1 to June 30 may be imposed in identified deer or elk fawning or calving areas.
- (f) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the

roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (g) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities pro-

posed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

## RANGE

1. ***Livestock grazing will be allowed. Grazing may be encouraged to provide added scenic variety.***
2. Provide annual permittee plans for livestock distribution and use patterns. Where conflicts cannot be resolved or mitigated, relocation or removal of livestock will be considered.
3. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
4. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.
5. ***Allow range improvements that meet partial retention.***
6. ***Allow increases in permitted grazing use to capture increases in transitory range where this is compatible with Foreground Partial Retention objectives.***
7. Prescribe kind and amount of grass seeding in silviculture prescriptions.
8. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utilization standards which are lower or rarely higher when associated with intensive grazing systems and specific vegetation management objectives which will meet resource management objectives and the intent of the management strategy. The standards include cumulative annual use by big game and livestock. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or twig length (e.g. utilization is 50 percent if 50 out of 100 leaders are browsed). Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory condition is anything not meeting satisfactory conditions. Allowable use of available forage (Maximum percent of annual utilization by big game and livestock) is:

## RANGE MANAGEMENT INTENSITY

	Minimum 1/	Extensive 2/	Intensive 3/
<b>Forested Areas</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Grasslands</b>			
-Satisfactory Condition	50%	55%	60%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Shrublands</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-25%	0-30%	0-35%

1/ Minimum - Minimum amount of improvements; simple grazing system.

2/ Extensive - Most or all improvements are non-structural; rotation grazing systems used.

3/ Wide variety of structural and non-structural improvements; rotation grazing systems used.

## TIMBER

1. Timber harvest will be scheduled in this management strategy.
2. When trees are cut for timber production objectives, the cutting shall be made in a way to assure that technology and knowledge exist to adequately restock the site within five years after final harvest (36 CFR 219.27(c)(3)).
3. Timber harvesting shall only occur on lands classified as suitable for timber production except for salvage sales, sales necessary to protect other multiple-use values or activities that meet other objectives if the Forest Plan establishes that such actions are appropriate (36 CFR 219.27(c)(1)).
4. **Treat timber stands to achieve desired visual characteristics through the following practices:**

- (a) Site preparation - chemical, mechanical, biological, manual and prescribed fire;

- (b) Tree improvement (genetics);
- (c) Reforestation by planting. Random natural seedlings will count towards reaching desired stocking;
- (d) Growing stock protection from animals, insects and diseases;
- (e) Release and weeding - chemical, mechanical, biological, manual and prescribed fire;
- (f) Precommercial thinning;
- (g) Fertilization;
- (h) Commercial thinning;
- (i) Salvage mortality as necessary;
- (j) Final Harvest - even-aged silvicultural system using shelterwood, seed tree or clearcut methods. The shelterwood method will probably be the most common; however, selection will be determined by the environmental assessment process and documented in a site-specific silvicultural prescription.

- \* (k) *Pruning*
5. The even-aged silvicultural system will be the most commonly used system in coniferous

forests. The uneven-aged silvicultural system may be used when healthy, fully stocked, uneven aged stands exist or can be created by identified treatments within a defined time period. The selection of the appropriate silvicultural system will be guided by the following criteria:

- (a) Must permit the production of sufficient volume of marketable trees to permit utilization of all trees which meet utilization standards and are designated for harvest;
  - (b) Must permit the use of an available and acceptable logging method;
  - (c) Must be capable of providing special conditions when required by critical soil conditions or needed to achieve management objectives;
  - (d) Must permit control of existing or potential vegetation to a degree that establishment of numbers of trees and rates of growth as identified in site-specific silvicultural prescriptions for harvest areas can be achieved.
  - (e) Must promote stand structure and species composition which avoids serious risk of damage from mammals, insects, disease or wildfire and will allow treatment of existing insect, disease or fuel conditions.
  - (f) Must meet resource and vegetation management objectives.
6. Utilize uneven-aged management if specific site and vegetation characteristics lend the area to this type of management.
7. **Manage the area for an overall mix of size classes of trees. The following mix of size class types should be achieved as the overall long term objective for the viewshed:**

<u>Size Class</u>	<u>% of Land Area</u>
22"-30"	43

16"-22"	21
9"-16"	22
0"- 9"	14

8. **Emphasize the viewing of large diameter Douglas-fir, ponderosa pine, sugar pine or Shasta fir. Emphasize other species where appropriate. Plan for dispersal of target trees to give the overall character of large trees to the whole area.**
9. **Design "created openings" to meet visual quality objective. The normal maximum size of "created openings" is 5 acres along roads and 3 acres along trails. Unit size applies to all even-aged regeneration units. Exceptions can be designed through the environmental analysis process.**
10. **The timber harvested area will no longer be considered a created opening for visual purposes when trees are 20 feet in height.**
11. **Provide a variety of views into the forest and the adjacent landscape.**
12. **Provide irregular shaped openings to create the overall impression of an undisturbed landscape.**
13. **Created openings will be no more than 4.8 percent of the viewed area per decade with a maximum of 9.6 percent at any one time.**
14. **Permit created openings along a route of not more than 800 ft. per mile and not more than 450 ft. continuously.**
15. **Emphasize a mix of deciduous shrub and ground cover species such as dogwood or vine maple.**
16. **Utilize irregular spacing when thinning.**
17. Create irregular patterns with plantings with a blend of tree species, approximating natural stands. In seed collections, no seed lot shall be represented by fewer than 15 families of trees of that species, well distributed across the breeding zone. In addition, no family of parent trees shall represent greater than 20 percent of a seed lot. Although any given plantation may be planted to a single

- species, strive for a natural seed source from a variety of species.
18. Emphasize a high edge per acre ratio on all even-aged units.
  19. Fuelwood and other miscellaneous forest products:
    - (a) Make miscellaneous forest products such as poles, posts, boughs, Christmas trees, house-logs, etc., available on an as needed basis consistent with the resource objectives of this management area.
    - (b) Provide access to potential fuelwood when appropriate. Bring fuelwood to convenient points in timber sale or thinning areas. Utilize appropriate timber sale clauses or modify fuels management prescriptions to meet this objective.
    - (c) Allow commercial fuelwood contracts for slash disposal, thinning and site preparation.
    - (d) Open slash areas to fuelwood gathering prior to traditional disposal methods.
    - (e) Leave slash as a fuelwood source where there is no conflict with resource activity.
    - (f) Consider using the fuelwood program as a means to meet silvicultural objectives in appropriate areas, such as low productivity stands or other stands prior to reaching commercial size.
    - (g) Consider the season of year and access when implementing a fuelwood program. The public will be encouraged to burn dry wood.
    - (h) Document fuelwood availability for public uses in project environmental analysis.
    - (i) Be responsive to the needs of the public for fuelwood.
    - (j) Create a Forest fuelwood and miscellaneous products policy to include fuelwood inventory.
  20. Rehabilitate and reconstruct developments and resources that have been impacted by timber sale activities.
  21. All silvicultural prescriptions will be approved by a certified silviculturist and reviewed by the District Ranger.
  22. Reforestation, precommercial thinning and release to meet recommended stocking will be addressed with site-specific silvicultural prescriptions.
  23. The logging system design for timber sales will be reviewed by logging systems specialists designated by the Forest Supervisor. Review for feasibility, silvicultural compatibility and economics.
  24. **All silvicultural prescriptions and logging plans will be reviewed by a landscape architect for feasibility, silvicultural compatibility and the ability to meet the foreground partial retention Visual Quality Objective.**
  25. Utilization standards for timber harvested will meet the standards as stated in the Pacific Northwest Regional Guide, Standards and Guidelines 4-2 and in Table 3-6. Standards in timber sale contracts may vary depending on markets and costs of harvesting.

## UTILIZATION STANDARDS

Type Tree	Minimum dbh.	Minimum Top dib.
First Decade Existing mature trees, except lodgepole pine (first and future decades)	9	6
Existing commercial thinning size trees and lodgepole pine	7	4
Future Decades All species, except surviving stands of first decade existing mature.	7	4

## WATER

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.
2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.

- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.
- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.
- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between: 1) the Oregon Department of Environmental Quality and U.S. De-

partment of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal lands) and 2) the State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.

3. The following requirements will be employed in project implementation when proposed projects may affect streams:
  - (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;
  - (b) Consider relation of project to riparian areas (all streams classed as I, II and III are allocated to Strategy 26);
  - (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
  - (d) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.
4. Acquire water rights for development of non-reserved uses.
5. Design project water monitoring as appropriate.
6. Allow for watershed restoration projects.
7. In-stream flows on National Forest lands should be protected through critical analysis of proposed water uses, diversion and transmission applications, and renewal of permits.

8. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.
9. Comply with the specific direction for management of each of the municipal watersheds as specified in management agreements between the U.S. Department of Agriculture or Forest and municipalities.

## MINERALS

1. Develop and manage new and existing aggregate sources in compliance with approved Rock Resource Development Plan and an approved environmental analysis.
2. **Rehabilitate aggregate source sites to meet Partial Retention Visual Quality Objectives.**
3. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
4. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
5. In plans or operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.
6. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

**HUMAN AND COMMUNITY DEVELOPMENT**

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.
3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

**LANDS**

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.
3. Direct applications for electronic sites toward use of sites in the following order:
  - (a) Utilizing residual capacity of existing sites.
  - (b) Develop new sites identified in the Forest-wide Electronic Site Plan.

4. Insure that proposed projects do not have adverse effect on lands included in active exchanges.
5. Develop rights-of-ways as necessary to implement projects.
6. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.
7. Establish and maintain property boundaries on lands administered by the Forest Service.

**SOILS**

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. No more than 10 percent of an activity area should be compacted, puddled or displaced upon completion of project (not including permanent roads or landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices, including roads and landings. Permanent recreation facilities or other permanent facilities are exempt.
4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.
5. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory:



## MS 7 - FOREGROUND PARTIAL RETENTION

- (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils.
  - (b) Thirty percent exposure on high or severe erosion hazard soils.
  - (c) Fifteen percent exposure on very high or very severe erosion hazard soils.
6. Rehabilitate adversely impacted sites.

### FACILITIES

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:
  - (a) Road and Trail Design Elements,
  - (b) Road and Trail Design Standards,
  - (c) Road Maintenance Levels,
  - (d) Road and Trail Maintenance Plans,
  - (e) Road Traffic Management Strategies,
  - (f) Road Restriction Orders and Traffic Control Devices,
  - (g) Off-Road Vehicle Management Strategies,
  - (h) Travel Maps and
  - (i) Closure Orders.
2. **The road system necessary for management of this area will be planned and constructed to minimize the number of intersections with the State Highway, County Road, or Forest Arterial Road along which the scenic management corridor is located. Where possible, local road access for logging will be from the "back side" using spurs from road systems parallel to the Highway.**
3. **Landscape architect and traffic engineering input will be required for design and operation of intersections of Forest roads with the Highway.**
4. **Where it is necessary to close a Forest route intersecting the Highway on a seasonal or intermittent basis, the closure shall be designed to achieve the visual quality objective as viewed from the Highway.**
5. Within sensitive soil resource inventory land types, as shown in Management Strategy 21, the following guidelines apply:
  - (a) Geotechnical input is required for road location, design, and management.
  - (b) Temporary roads will be planned, located, surveyed, designed, constructed, and operated utilizing the same procedures for reviewing, decisions, selecting design elements and standards, and controlling construction, operation, and maintenance as are used for permanent transportation system roads.
  - (c) Roads which access or traverse these land types may be closed seasonally to prevent resource damage.
6. Temporary roads that have been evaluated through the NEPA process are permitted.
7. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service. Vegetation shall be reestablished within one year.
8. **Power lines and other utilities shall be constructed, operated, and maintained to achieve the visual quality objective as viewed from the Highway.**

### PROTECTION

1. Plan pest control alternatives to be biologically selective, cost beneficial and to have no irreversible adverse effect on the environment.

2. ***Suppress pests when outbreaks threaten managed resources and/or users. Use methods that minimize site disturbance.***
3. ***Utilize Integrated Pest Management strategies to prevent unacceptable damage in visual corridors. Manual, mechanical and cultural methods are emphasized.***
4. ***Provide a moderate level of fire prevention activities consisting of: public contact through the use of media and personal contact at campgrounds and dispersed recreation areas; and fire prevention signing at campgrounds, rest areas, main road junctions, information centers and local businesses.***
5. Use prescription fire to obtain the desired ecological characteristics of the area.
6. Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.
7. ***Hazard reduction activities will be compatible with management area objectives.***
8. ***Design fuel breaks to meet the natural characteristics of the area.***
9. ***Integrate fuel break construction with vegetation management projects.***
10. Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.
11. Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.

## MANAGEMENT STRATEGY 8

### MIDLEGROUND RETENTION

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#### GOAL

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Maximize protection and enhancement of scenic resources in Middleground Retention areas.

#### DESCRIPTION

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This strategy can be applied only to those acres designated as suitable for sensitivity level one middleground.

Landscapes seen from selected travel routes and use areas are managed so that, to the casual observer, results of activities are not evident. A management system is adopted which introduces some alteration of standard vegetation treatments, different scheduling of treatments, and with logging systems, debris disposal and silvicultural management practices designed to accomplish visual management objectives.

Provide a continuous mosaic of vegetative textures with openings that are not evident. The visual components of form, line, color and texture of the characteristic landscape will be retained to give the appearance of an unaltered landscape.

When conflicts exist between visual and other resources, the conflict will be resolved in favor of the visual resource, subject to rights under law and regulation.

This area does not include class I, II and III streams, or their associated riparian zones.

#### STANDARDS AND GUIDELINES

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##### RECREATION - ROADED NATURAL

1. ***Manage the area for Retention Visual Quality Objective. Catastrophic occurrences may dictate a need for short term departure from Retention. Blend and shape re-***

***generation openings with the natural terrain to the extent possible. Assess the impacts to visual resources in all project environmental analysis. Specifically address how the visual quality objective will be met.***

2. ***Design recreation developments to meet visual quality objectives when viewed from travel routes and critical view points.***
3. ***Design all projects with the assistance of a landscape architect.***
4. ***Correct unacceptable changes in form, line, color or texture as a result of management activities either during the operation or within one year after.***
5. ***Off-road vehicle use is permitted if evidence of use meets the visual quality objective. When this activity begins to adversely impact the visual qualities of these areas, restrictions will be imposed on off-road vehicle activities. These restrictions may include prohibition on types of equipment used, seasonal closures or total closures.***
6. ***Provide for dispersed recreation activities such as hunting, fishing, gathering of forest products and scenic driving.***
7. ***Rehabilitate deteriorated recreation use areas.***
8. ***Manage trails and dispersed occupancy sites in a manner not in conflict with visual resource values.***
9. ***Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.***
10. ***Protect Special Dispersed Features, including trails, from adverse impacts until man-***

agement of the special dispersed feature is addressed in an environmental analysis.

11. ***Viewshed plans will be prepared to provide project level direction for implementing the Forest Plan.***
12. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.
13. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
14. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
15. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
16. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
17. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.

18. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
19. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

## WILDERNESS

1. This element is not applicable under a scenic views management strategy.
2. Project plans will assure that Wilderness boundaries are not violated.

## WILDLIFE, FISH AND PLANTS

1. Permit wildlife and fish projects that do not conflict with visual resource values.
2. Existing and Proposed Endangered, Threatened and Sensitive Species

Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

3. Management practices for some selected species are as follows:

- (a) Northern Spotted Owl - Manage this species under the standards and guidelines established in the ROD for the Supplement to the Environmental Impact Statement for an amendment to the Pacific Northwest Regional Guide. In the event that a pair of north-

ern spotted owls are found in an area, consideration will be given to (1) the need to improve the distribution of older forest ecosystems for all associated plant and animal species; (2) providing insight into management of spotted owl habitat areas (SOHA) through experimental habitat manipulation. During the planning and scheduling phase of any project activity that may impact spotted owl habitat, conduct a biological evaluation in order to determine the degree of impact and to provide for protective measures.

- (b) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.

- (c) Goshawk-Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (d) Woodpeckers - (Cavity Nesters) Leave sufficient wildlife trees (hard

snags or green trees designated to become snags) in coniferous forest lands to provide for at least 60 percent of the potential population levels of cavity nesting species. The distribution of numbers and size class necessary to meet 60% per 100 acres is as follows:

Siskiyou and Cascade Mixed Conifer

<u>Size</u>	<u>Number</u>
15+	179
17+	36
25+	3
Total	218

Siskiyou and Cascade True Fir

<u>Size</u>	<u>Number</u>
15+	143
17+	11
25+	3
Total	157

Species distribution should be representative of the site's original stand. Trees selected for retention should maximize use of the stand's cull component. If the proper number and size of trees do not exist in the stand to be treated, select the proper number from the next lower size class. (i.e. if 25" trees are not available go to 17" trees). Material that satisfies the need for down woody material recruitment will come from existing down material, down woody material that is the result of a silvicultural treatment and from the trees that are designated to meet standing wildlife tree requirements. The long-term goal for large woody material (LWM) is 10 to 20 pieces of class I and II logs per acre, and all existing class III, IV and V logs, except for incidental amounts removed during management activities. Additional green merchantable trees will not be designated unless none of the other categories exist. The expected life span of snags or dead trees in mixed conifer working groups is 30 years and in true fir working groups the life span is 20 years. The silvicultural pre-

scription will describe the total number, size and species of wildlife trees that will be required through the next full rotation of the stand being treated. Wildlife and down woody material requirement will be included as part of the vegetative (silvicultural) prescription for each stand. Information for the prescription will be provided by a wildlife biologist based on site by site needs. A certified silviculturist will validate the data and include it in the preparation of the final vegetative (silvicultural) prescription that implements all the interdisciplinary requirements. The logging system required, reforestation needs, slash disposal requirements and site preparation needs should be compatible with the wildlife tree distribution needs. Primary cavity excavator habitat will be met on areas no larger than 60 acres including adjacent existing harvest units. The objective is to provide well distributed habitat, and to allow adjacent stands to provide the needed wildlife trees for past harvest units where current standards were not met. Where past harvest units were very large, the adjacent stands within 900 feet will be managed at higher wildlife tree levels to bring the overall area to at least the 40 percent level. When the past harvest units were of such magnitude that the above methods cannot bring the entire area to the 40 percent level, the remaining shortage will not be provided for, but will be tracked for the purpose of monitoring the forest plan. Selection of wildlife trees to make up for past deficits will meet the same selection criteria as in newly treated stands. Green merchantable trees will not be girdled to create wildlife snags, regardless of the situation, until (5-7) years after project completion (sale closure), in order to capture any mortality that may occur during that time.

- (e) Deer and Elk - Maintain summer range to provide forage, hiding and thermal cover at or above the 20 per-

cent level. In addition, where consistent with the goal statement of this strategy, maintain 40 percent of each 500-1,00-acre area of non-critical deer and elk wintering area in a condition to provide for thermal cover. Timber harvesting and/or thinning should provide hiding and thermal cover between treatment areas and roads with continuous vehicle use. Hiding cover should be dense enough to hide 90 percent of a deer or elk from view at 200 feet. Hiding cover need not be continuous but gaps between screens should not exceed one-quarter of a mile. A restricted operating period from April 1 to June 30 may be imposed in identified deer or elk fawning or calving areas.

- (f) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than

500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (g) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

## RANGE

### 1. *Permit livestock grazing on transitory ranges under the following situations:*

- (a) *Where forage occurs in natural stands or as a result of site disturbance and/or timber canopy removal on a periodic basis.*
- (b) *Where disturbed sites and/or areas under timber management can be seeded with species which improve forage production and does not restrict tree establishment and growth. (FSM 2521.02, RR Supplement #6, 2/73)*
- (c) *On forest plantations when livestock will not damage the young trees.*

### 2. *Permit livestock grazing on primary and secondary range.*

- 3. Provide annual permittee plans for livestock distribution and use patterns. Where conflicts cannot be resolved or mitigated, relocation or removal of livestock will be considered.
- 4. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
- 5. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and be-

tween agencies, permittees and other landowners.

### 6. Allow range improvements.

### 7. *Allow increases in permitted grazing use to capture increases in transitory range.*

### 8. Prescribe kind and amount of grass seeding in silviculture prescriptions.

## TIMBER

### 1. Timber harvest will be scheduled.

### 2. When trees are cut for timber production objectives, the cutting shall be made in a way to assure that technology and knowledge exist to adequately restock the site within five years after final harvest (36 CFR 219.27(c)(3)).

### 3. Timber harvesting shall only occur on lands classified as suitable for timber production except for salvage sales, sales necessary to protect other multiple-use values or activities that meet other objectives if the Forest Plan establishes that such actions are appropriate (36 CFR 219.27(c)(1)).

### 4. *Treat timber stands to achieve desired visual characteristics through the following practices:*

- (a) Site preparation - chemical, mechanical, biological, manual and prescribed fire;
- (b) Tree improvement (genetics);
- (c) Reforestation by planting. Random natural seedlings will count towards reaching desired stocking;
- (d) Growing stock protection from animals, insects and diseases;
- (e) Release and weeding - chemical, mechanical, biological, manual and prescribed fire;



- (f) Precommercial thinning;
- (g) Fertilization;
- (h) Commercial thinning;
- (i) Salvage mortality as necessary;
- (j) Final Harvest - even-aged silvicultural system using shelterwood, seed tree or clearcut methods. The shelterwood method will probably be the most common; however, selection will be determined by the environmental assessment process and documented in site-specific silvicultural prescription.
- \* (k) *Pruning*
- 5. ***Provide a mosaic of vegetative textures with natural shaped openings that are not evident.***
- 6. ***The normal maximum size of "created openings" is 6 acres. Unit size applies to all even-aged regeneration units. Exceptions can be designed through the environmental analysis process.***
- 7. ***Created openings will be separated by areas generally not classed as created openings. The areas between created openings shall contain one or more logical harvest units. These areas shall be large enough and contain a stand structure to meet resource requirements of the management area. The total area of created openings contiguous to 30 acre or larger natural openings should normally be limited to an area not exceeding 1/3 the size of the natural opening and not occupying more than 1/3 of the natural opening perimeter. Openings should not be created adjacent to any natural openings unless adequate vegetation along the edge can be developed or retained in sufficient density to protect wildlife values and visual management objectives. The determination of adequate vegetation will be made by an appropriate interdisciplinary team.***
- 8. ***The timber harvested area will no longer be considered a created opening for visual purposes when trees are 20 feet in height and free to grow.***

- 9. ***Provide a minimum of 600 feet between created openings.***
- 10. ***Created openings will be no more than 4 percent of the viewed area per decade with a maximum of 8 percent at any one time.***
- 11. Emphasize a high edge per acre ratio on all even-aged units.
- 12. Rehabilitate and reconstruct developments and resources that have been impacted by timber sale activities.
- 13. All silvicultural prescriptions will be approved by a certified silviculturist and reviewed by the District Ranger.
- 14. The logging system design for timber sales will be reviewed by logging systems specialists designated by the Forest Supervisor. Review for feasibility, silvicultural compatibility and economics.
- 15. The even-aged silvicultural system will be the most commonly used system in coniferous forests. The uneven-aged silvicultural system may be used when healthy, fully stocked, uneven-aged stands exist or can be created by identified treatments within a defined time period. The selection of the appropriate silvicultural system will be guided by the following criteria:
  - (a) must permit the production of sufficient volume of marketable trees to permit utilization of all trees which meet utilization standards and are designated for harvest;
  - (b) must permit the use of an available and acceptable logging method;
  - (c) must be capable of providing special conditions when required by critical soil conditions or needed to achieve management objectives;
  - (d) must permit control of existing or potential vegetation to a degree that establishment of numbers of trees and rates of growth as identified in site-

- specific silvicultural prescriptions for harvest areas can be achieved;
- (e) must promote stand structure and species composition which avoids serious risk of damage from mammals, insects, disease or wildfire and will allow treatment of existing insect, disease or fuel conditions;
  - (f) must meet resource and vegetation management objectives identified for this management area.
16. **Consider uneven-aged management if specific site and vegetation characteristics lend the area to this type of management.**
  17. **Strive for reasonably balanced acreage in each age class to obtain diversity in each locator area.**
  18. Reforestation, precommercial thinning and release to meet recommended (full) stocking will be addressed with site-specific silvicultural prescriptions.
  19. Set harvest treatment priorities by cut categories on each District so that the stands most needing treatment are done first, wherever reasonably possible.
  20. Maintain a blend of tree species approximating natural stands. In seed collections, no seed lot shall be represented by fewer than 15 families of trees of that species, well distributed across the breeding zone. In addition, no family of parent trees shall represent greater than 20 percent of a seed lot. Although any given plantation may be planted to a single species, strive for a natural seed source from a variety of species.
  21. Fuelwood and other miscellaneous forest products:
    - (a) Make miscellaneous forest products such as poles, posts, boughs, Christmas trees, house-logs, etc., available on an as needed basis consistent with the resource objectives of this management area.
    - (b) Provide access to potential fuelwood when appropriate. Bring fuelwood to convenient points in timber sale or thinning areas. Utilize appropriate timber sale clauses or modify fuels management prescriptions to meet this objective.
    - (c) Allow commercial fuelwood contracts for slash disposal, thinning and site preparation.
    - (d) Open slash areas to fuelwood gathering prior to traditional disposal methods.
    - (e) Leave slash as a fuelwood source where there is no conflict with resource activity.
    - (f) Consider using the fuelwood program as a means to meet silvicultural objectives in appropriate areas, such as low productivity stands or other stands prior to reaching commercial size.
    - (g) Consider the season of year and access when implementing a fuelwood program. The public will be encouraged to burn dry wood.
    - (h) Document fuelwood availability for public uses in project environmental analysis.
    - (i) Be responsive to the needs of the public for fuelwood.
    - (j) Create a Forest fuelwood and miscellaneous products policy to include fuelwood inventory.
  22. **All silvicultural prescriptions and logging plans will be reviewed by a landscape architect for feasibility, silvicultural compatibility and the ability to meet the middle-ground retention Visual Quality Objective.**
  23. Utilization standards for timber harvested will meet the standards as stated in the Pacific Northwest Regional Guide, Standards and Guidelines 4-2 and in Table 3-6. Standards in timber sale contracts may vary depending on markets and costs of harvesting.

## UTILIZATION STANDARDS

Type Tree	Minimum dbh.	Minimum Top dib.
First Decade Existing mature trees, except lodgepole pine (first and future decades)	9	6
Existing commercial thinning size trees and lodgepole pine	7	4
Future Decades All species, except surviving stands of first decade existing mature.	7	4

## WATER

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.
2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.
- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.
- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.

- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.

- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.

- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between: 1) the Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal lands) and 2) the State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.

3. The following requirements will be employed in project implementation when proposed projects may affect streams:

- (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;
  - (b) Consider relation of project to riparian areas (all streams classed as I, II and III are allocated to Strategy 26);
  - (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
  - (d) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.
4. Acquire water rights for development of non-reserved uses.
  5. Design project water monitoring as appropriate.
  6. Allow for watershed restoration projects.
  7. In-stream flows on National Forest System lands should be protected through critical analysis of proposed water uses, diversion and transmission applications, and renewal of permits.
  8. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.

## MINERALS

1. Develop and manage new and existing aggregate sources in compliance with approved Rock Resource Development Plan and an approved environmental analysis.
2. **Rehabilitate aggregate source sites to meet Retention Visual Quality Objectives.**
3. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response

to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.

4. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
5. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.
6. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

## HUMAN AND COMMUNITY DEVELOPMENT

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.
3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

## LANDS

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.
3. Direct applications for electronic sites toward use of sites in the following order:
  - (a) Utilizing residual capacity of existing sites.
  - (b) Develop new sites identified in the Forest-wide Electronic Site Plan.
4. Insure that proposed projects do not have adverse effect on lands included in active exchanges.
5. Develop rights-of-ways as necessary to implement projects.
6. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.
7. Establish and maintain property boundaries on lands administered by the Forest Service.

## SOILS

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. No more than 10 percent of an activity area should be compacted, puddled or displaced upon completion of project (not including permanent roads or landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices, in-

cluding roads and landings. Permanent recreation facilities or other permanent facilities are exempt.

4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.
5. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory:
  - (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils.
  - (b) Thirty percent exposure on high or severe erosion hazard soils.
  - (c) Fifteen percent exposure on very high or very severe erosion hazard soils.
6. Rehabilitate adversely impacted sites.

## FACILITIES

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:
  - (a) Road and Trail Design Elements,
  - (b) Road and Trail Design Standards,
  - (c) Road Maintenance Levels,
  - (d) Road and Trail Maintenance Plans,
  - (e) Road Traffic Management Strategies,
  - (f) Road Restriction Orders and Traffic Control Devices,
  - (g) Off-Road Vehicle Management Strategies,

- (h) Travel Maps and
  - (i) Closure Orders.
2. **Road clearing and excavation shall be designed to fit the natural patterns of form, line and texture of the landscape and meet the visual quality objective.**
  3. **New helispots, rock pits, and borrow areas will meet the visual quality objective.**
  4. **Existing roads and facilities that do not meet the visual quality objective shall be identified. Long term plans shall be implemented to rehabilitate these facilities.**
  5. Within sensitive soil resource inventory land types as shown in Management Strategy 21, the following guidelines apply:
    - (a) Geotechnical input is required for road location, design, and management.
    - (b) Temporary roads will be planned, located, surveyed, designed, constructed, and operated utilizing the same procedures for reviewing, decisions, selecting design elements and standards, and controlling construction, operation, and maintenance as are used for permanent transportation system roads.
    - (c) Roads which access or traverse these land types may be closed seasonally to prevent resource damage.
  6. Temporary roads that have been evaluated through the NEPA process are permitted.
  7. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service. Vegetation shall be reestablished within one year.
2. **Suppress pests when outbreaks threaten managed resources and/or users. Use methods that minimize site disturbance.**
  3. **Utilize Integrated Pest Management strategies to prevent unacceptable damage in visual corridors. Manual, mechanical and cultural methods are emphasized.**
  4. **Provide a moderate level of fire prevention activities consisting of: public contact through the use of media and personal contact at campgrounds and dispersed recreation areas; and fire prevention signing at campgrounds, rest areas, main road junctions, information centers and local businesses.**
  5. Use prescription fire to obtain the desired ecological characteristics of the area.
  6. Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.
  7. **Hazard reduction activities will be compatible with management area objectives.**
  8. **Design fuelbreaks to meet the natural characteristics of the area.**
  9. **Integrate fuelbreak construction with vegetation management projects.**
  10. Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.
  11. Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.

## PROTECTION

1. Plan pest control alternatives to be biologically selective, cost beneficial and to have no

## MANAGEMENT STRATEGY 9

### MIDDLEGROUND PARTIAL RETENTION

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#### GOAL

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Manage scenic resources to meet Partial Retention in the Middleground.

#### DESCRIPTION

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This strategy can be applied only to those acres designated as suitable for sensitivity level one middleground.

Landscapes seen from selected travel routes and use areas are managed so that, to the casual observer, results of activities are evident but are visually subordinate to the natural landscape. A management system is adopted which introduces some alteration of standard vegetation treatments, different scheduling of treatments, and with logging systems, debris disposal and silvicultural management practices designed to accomplish visual management objectives.

Activities should repeat or may introduce form, line, color or texture common to the characteristic landscape but changes in the activities size, amount, intensity, direction, pattern, etc., remain visually subordinate to the characteristic landscape.

When conflicts exist between visual and other resources, the conflict will be resolved in favor of the visual resource, subject to rights under law and regulation.

This area does not include class I, II and III streams, or their associated riparian zones.

#### STANDARDS AND GUIDELINES

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##### RECREATION - ROADED NATURAL

1. ***Manage the area for Partial Retention Visual Quality Objective. Catastrophic occurrences may dictate a need for short term departure from partial retention. Blend and***

***shape regeneration openings with the natural terrain to the extent possible. Assess the impacts to visual resources in all project environmental analysis. Specifically address how the visual quality objective will be met.***

2. ***Design recreation developments to meet Partial Retention Visual Quality Objectives when viewed from travel routes and critical view points.***
3. ***Design projects having high visual impacts with assistance of a landscape architect.***
4. ***Provide for dispersed recreation activities such as hunting, fishing, gathering of forest products and scenic driving.***
5. Rehabilitate deteriorated recreation use areas.
6. ***Manage trails and dispersed occupancy sites in a manner not in conflict with visual resource values.***
7. Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.
8. ***Protect Special Dispersed Features, including trails, from adverse impacts until management of the special dispersed feature is addressed in an environmental analysis.***
9. ***Viewshed plans will be prepared to provide project level direction for implementing the Forest Plan.***
10. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project envi-

ronmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.

11. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
12. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
13. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
14. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
15. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
16. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
17. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

18. ***Off-road vehicle recreation use on roads, trails or areas is permissible, if not in conflict with strategy goals and objectives.***

## WILDERNESS

1. This element is not applicable under a scenic views management strategy.
2. Project plans will assure that Wilderness boundaries are not violated.

## WILDLIFE, FISH AND PLANTS

1. Permit wildlife and fish projects that do not conflict with visual resource values.
2. Existing and Proposed Endangered, Threatened and Sensitive Species

Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;



- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

3. Management practices for some selected species are as follows:

- (a) Northern Spotted Owl - Manage this species under the standards and guidelines established in the ROD for the Supplement to the Environmental Impact Statement for an amendment to the Pacific Northwest Regional Guide. In the event that a pair of northern spotted owls are found in an area, consideration will be given to (1) the need to improve the distribution of older forest ecosystems for all associated plant and animal species; (2) providing insight into management of spotted

owl habitat areas (SOHA) through experimental habitat manipulation. During the planning and scheduling phase of any project activity that may impact spotted owl habitat, conduct a biological evaluation in order to determine the degree of impact and to provide for protective measures.

- (b) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.
- (c) Goshawk-Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (d) Woodpeckers - (Cavity Nesters) Leave sufficient wildlife trees (hard snags or green trees designated to become snags) in coniferous forest lands to provide for at least 60 percent of the potential population levels for cavity nesting species. The distribution of

numbers and size class necessary to meet 60% per 100 acres is as follows:

Siskiyou and Cascade Mixed Conifer

<u>Size</u>	<u>Number</u>
15+	179
17+	36
25+	3
Total	218

Siskiyou and Cascade True Fir

<u>Size</u>	<u>Number</u>
15+	143
17+	11
25+	3
Total	157

Species distribution should be representative of the site's original stand. Trees selected for retention should maximize use of the stand's cull component. If the proper number and size of trees do not exist in the stand to be treated, select the proper number from the next lower size class. (i.e. if 25" trees are not available go to 17" trees). Material that satisfies the need for down woody material recruitment will come from existing down material, down woody material that is the result of a silvicultural treatment and from the trees that are designated to meet standing wildlife tree requirements. The long-term goal for large woody material (LWM) is 10 to 20 pieces of class I and II logs per acre, and all existing class III, IV and V logs, except for incidental amounts removed during management activities. Additional green merchantable trees will not be designated unless none of the other categories exist. The expected life span of snags or dead trees in mixed conifer working groups is 30 years and in true fir working groups the life span is 20 years. The silvicultural prescription will describe the total number, size and species of wildlife trees that will be required through the next full rotation of the stand being treated. Wildlife and down woody material re-

quirement will be included as part of the vegetative (silvicultural) prescription for each stand. Information for the prescription will be provided by a wildlife biologist based on site by site needs. A certified silviculturist will validate the data and include it in the preparation of the final vegetative (silvicultural) prescription that implements all the interdisciplinary requirements. The logging system required, reforestation needs, slash disposal requirements and site preparation needs should be compatible with the wildlife tree distribution needs. Primary cavity excavator habitat will be met on areas no larger than 60 acres including adjacent existing harvest units. The objective is to provide well distributed habitat, and to allow adjacent stands to provide the needed wildlife trees for past harvest units where current standards were not met. Where past harvest units were very large, the adjacent stands within 900 feet will be managed at higher wildlife tree levels to bring the overall area to at least the 40 percent level. When the past harvest units were of such magnitude that the above methods cannot bring the entire area to the 40 percent level, the remaining shortage will not be provided for, but will be tracked for the purpose of monitoring the forest plan. Selection of wildlife trees to make up for past deficits will meet the same selection criteria as in newly treated stands. Green merchantable trees will not be girdled to create wildlife snags, regardless of the situation, until (5-7) years after project completion (sale closure), in order to capture any mortality that may occur during that time. Operational accomplishment will be included as a monitoring item in the forest plan.

- (e) Deer and Elk - Maintain summer range to provide forage, hiding and thermal cover at or above 20 percent level. In addition, where consistent with the goal statement of this strategy, maintain 40 percent of each

500-1,000-acre area of non-critical deer and elk wintering area in a condition to provide for thermal cover. Timber harvesting and/or thinning should provide hiding and thermal cover between treatment areas and roads with continuous vehicle use. Hiding cover should be dense enough to hide 90 percent of a deer or elk from view at 200 feet. Hiding cover need not be continuous but gaps between screens should not exceed one-quarter of a mile. A restricted operating period from April 1 to June 30 may be imposed in identified deer or elk fawning or calving areas.

- (f) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the

roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (g) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities pro-

posed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

## RANGE

1. **Permit livestock grazing on transitory ranges under the following situations:**
  - (a) **Where forage occurs in natural stands or as a result of site disturbance and/or timber canopy removal on a periodic basis.**
  - (b) **Where disturbed sites and/or areas under timber management can be seeded with species which improve forage production and does not restrict tree establishment and growth. (FSM 2521.02, RR Supplement #6, 2/73)**
  - (c) **On forest plantations when livestock will not damage the young trees.**
2. Permit livestock grazing on primary and secondary range.
3. Provide annual permittee plans for livestock distribution and use patterns. Where conflicts cannot be resolved or mitigated, relocation or removal of livestock will be considered.
4. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
5. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.
6. Allow range improvements.
7. **Allow increases in permitted grazing use to capture increases in transitory range where this is compatible with Middle-ground Partial Retention objectives.**
8. Prescribe kind and amount of grass seeding in silviculture prescriptions.
9. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utilization standards which are lower or rarely higher when associated with intensive grazing systems and specific vegetation management objectives which will meet resource management objectives and the intent of the management strategy. The standards include cumulative annual use by big game and livestock. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or twig length (e.g. utilization is 50 percent if 50 out of 100 leaders are browsed). Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory condition is anything not meeting satisfactory conditions. Allowable use of available forage (Maximum percent of annual utilization by big game and livestock) is:

## RANGE MANAGEMENT INTENSITY

	Minimum 1/	Extensive 2/	Intensive 3/
<b>Forested Areas</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Grasslands</b>			
-Satisfactory Condition	50%	55%	60%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Shrublands</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-25%	0-30%	0-35%

- 1/ Minimum - Minimum amount of improvements; simple grazing system.  
 2/ Extensive - Most or all improvements are non-structural; rotation grazing systems used.  
 3/ Wide variety of structural and non-structural improvements; rotation grazing systems used.

## TIMBER

1. Timber harvest will be scheduled.

2. When trees are cut for timber production objectives, the cutting shall be made in a way to assure that technology and knowledge exist to adequately restock the site within five years after final harvest (36 CFR 219.27(c)(3)).

3. Timber harvesting shall only occur on lands classified as suitable for timber production except for salvage sales, sales necessary to protect other multiple-use values or activities that meet other objectives if the Forest Plan establishes that such actions are appropriate (36 CFR 219.27(c)(1)).

**4. Treat timber stands to achieve desired visual characteristics through the following practices:**

- (a) Site preparation - chemical, mechanical, biological, manual and prescribed fire.
- (b) Tree improvement (genetics).
- (c) Reforestation by planting. Random natural seedlings will count towards reaching desired stocking.

- (d) Growing stock protection from animals, insects and diseases.

- (e) Release and weeding - chemical, mechanical, biological, manual and prescribed fire.

- (f) Precommercial thinning.

- (g) Fertilization.

- (h) Commercial thinning.

- (i) Salvage mortality as necessary.

- (j) Final Harvest - even-aged silvicultural system using shelterwood, seed tree or clearcut methods. The shelterwood method will probably be the most common; however, selection will be determined by the environmental assessment process and documented in site-specific silvicultural prescriptions.

\* (k) *Pruning*

5. Provide a mosaic of vegetative textures with natural shaped openings that are evident but are not dominant.

6. The normal maximum size of "created openings" is 15 acres. Unit size applies to all even-aged regeneration units. Except-

- tions can be designed through the environmental analysis process.*
7. ***Created openings will be separated by areas generally not classed as created openings. The areas between created openings shall contain one or more logical harvest units. These areas shall be large enough and contain a stand structure to meet resource requirements of the management area. The total area of created openings contiguous to 30 acre or larger natural openings should normally be limited to an area not exceeding 1/3 the size of the natural opening and not occupying more than 1/3 of the natural opening perimeter. Openings should not be created adjacent to any natural openings unless adequate vegetation along the edge can be developed or retained in sufficient density to protect values and visual management objectives. The determination of adequate vegetation will be made by an appropriate interdisciplinary team.***
  8. ***The timber harvested area will no longer be considered a created opening for visual purposes when trees are 20 feet in height and free to grow.***
  9. ***Provide a minimum of 600 feet between created openings.***
  10. ***Created openings will be no more than 7 percent of the viewed area per decade with a maximum of 14 percent at any one time.***
  11. Emphasize a high edge per-acre ratio on all even-aged units.
  12. Rehabilitate and reconstruct developments and resources that have been impacted by timber sale activities.
  13. All silvicultural prescriptions will be approved by a certified silviculturist and reviewed by the District Ranger.
  14. The logging system design for timber sales will be reviewed by logging systems specialists designated by the Forest Supervisor. Review for feasibility, silvicultural compatibility and economics.
  15. The even-aged silvicultural system will be the most commonly used system in coniferous forests. The uneven-aged silvicultural system may be used when healthy, fully stocked, uneven-aged stands exist or can be created by identified treatments within a defined time period. The selection of the appropriate silvicultural system will be guided by the following criteria:
    - (a) must permit the production of sufficient volume of marketable trees to permit utilization of all trees which meet utilization standards and are designated for harvest.
    - (b) must permit the use of an available and acceptable logging method.
    - (c) must be capable of providing special conditions when required by critical soil conditions or needed to achieve management objectives.
    - (d) must permit control of existing or potential vegetation to a degree that establishment of numbers of trees and rates of growth as identified in site-specific silvicultural prescriptions for harvest areas can be achieved.
    - (e) must promote stand structure and species composition which avoids serious risk of damage from mammals, insects, disease or wildfire and will allow treatment of existing insect, disease or fuel conditions.
    - (f) must meet resource and vegetation management objectives identified for this management area.
  16. Strive for reasonably balanced acreage in each age class to obtain diversity in each locator area.
  17. Reforestation, precommercial thinning and release to meet recommended (full) stocking will be addressed with site-specific silvicultural prescriptions.
  18. Set harvest treatment priorities by cut categories on each District so that the stands

most needing treatment are done first, wherever reasonably possible.

19. Maintain a blend of tree species approximating natural stands. In seed collections, no seed lot shall be represented by fewer than 15 families of trees of that species, well distributed across the breeding zone. In addition, no family of parent trees shall represent greater than 20 percent of a seed lot. Although any given plantation may be planted to a single species, strive for a natural seed source from a variety of species.

20. Fuelwood and other miscellaneous forest products:

- (a) Make miscellaneous forest products such as poles, posts, boughs, Christmas trees, house-logs, etc., available on an as-needed basis consistent with the resource objectives of this management area.
- (b) Provide access to potential fuelwood when appropriate. Bring fuelwood to convenient points in timber sale or thinning areas. Utilize appropriate timber sale clauses or modify fuels management prescriptions to meet this objective.
- (c) Allow commercial fuelwood contracts for slash disposal, thinning and site preparation.
- (d) Open slash areas to fuelwood gathering prior to traditional disposal methods.

- (e) Leave slash as a fuelwood source where there is no conflict with resource activity.

- (f) Consider using the fuelwood program as a means to meet silvicultural objectives in appropriate areas, such as low productivity stands or other stands prior to reaching commercial size.

- (g) Consider the season of year and access when implementing a fuelwood program. The public will be encouraged to burn dry wood.

- (h) Document fuelwood availability for public uses in project environmental analysis.

- (i) Be responsive to the needs of the public for fuelwood.

- (j) Create a Forest fuelwood and miscellaneous products policy to include fuelwood inventory.

21. ***All silvicultural prescriptions and logging plans will be reviewed by a landscape architect for feasibility, silvicultural compatibility and the ability to meet middleground partial retention Visual Quality Objective.***

22. Utilization standards for timber harvested will meet the standards as stated the Pacific Northwest Regional Guide, Standards and Guidelines 4-2 and in Table 3-6. Standards in timber sale contracts may vary depending on markets and costs of harvesting.

## UTILIZATION STANDARDS

Type Tree	Minimum dbh.	Minimum Top dib.
First Decade Existing mature trees, except lodgepole pine (first and future decades)	9	6
Existing commercial thinning size trees and lodgepole pine	7	4
Future Decades All species, except surviving stands of first decade existing mature.	7	4

## WATER

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.
2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.
- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.

- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.
- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between: 1) the Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and



Grazing Activities on Federal lands) and 2) the State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.

3. The following requirements will be employed in project implementation when proposed projects may affect streams:
  - (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;
  - (b) Consider relation of project to riparian areas (all streams classed as I, II and III are allocated to Strategy 26);
  - (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
  - (d) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.
4. Acquire water rights for development of non-reserved uses.
5. Design project water monitoring as appropriate.
6. Allow for watershed restoration projects.
7. In-stream flows on National Forest lands should be protected through critical analysis of proposed water uses, diversion and transmission applications, and renewal of permits.
8. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.

## MINERALS

1. Develop and manage new and existing aggregate sources in compliance with approved Rock Resource Development Plan and an approved environmental analysis.
2. ***Rehabilitate aggregate source sites to meet Partial Retention Visual Quality Objective.***
3. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
4. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
5. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.
6. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

## HUMAN AND COMMUNITY DEVELOPMENT

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.

3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

## LANDS

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.
3. Direct applications for electronic sites toward use of sites in the following order:
  - (a) Utilizing residual capacity of existing sites.
  - (b) Develop new sites identified in the Forest-wide Electronic Site Plan.
4. Insure that proposed projects do not have adverse effect on lands included in active exchanges.
5. Develop rights-of-ways as necessary to implement projects.
6. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.
7. Establish and maintain property boundaries on lands administered by the Forest Service.

## SOILS

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. No more than 10 percent of an activity area should be compacted, puddled or displaced upon completion of project (not including permanent roads or landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices, including roads and landings. Permanent recreation facilities or other permanent facilities are exempt.
4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.
5. ***Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory:***
  - (a) ***Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils.***
  - (b) ***Thirty percent exposure on high or severe erosion hazard soils.***
  - (c) ***Fifteen percent exposure on very high or very severe erosion hazard soils.***

**6. Rehabilitate adversely impacted sites.**

**FACILITIES**

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:

- (a) Road and Trail Design Elements,
- (b) Road and Trail Design Standards,
- (c) Road Maintenance Levels,
- (d) Road and Trail Maintenance Plans,
- (e) Road Traffic Management Strategies,
- (f) Road Restriction Orders and Traffic Control Devices,
- (g) Off-Road Vehicle Management Strategies,
- (h) Travel Maps and
- (i) Closure Orders.

2. **Road clearing and excavation shall be designed to fit the natural patterns of form, line and texture of the landscape and meet the visual quality objective.**

3. **New helispots, rock pits, and borrow areas will meet the visual quality objective.**

4. **Existing roads and facilities that do not meet the visual quality objective shall be identified. Long-term plans shall be implemented to rehabilitate these facilities.**

5. Within sensitive soil resource inventory land types as shown in Management Strategy 21, the following guidelines apply:

- (a) Geotechnical input is required for road location, design, and management.

- (b) Temporary roads will be planned, located, surveyed, designed, constructed, and operated utilizing the same procedures for reviewing, decisions, selecting design elements and standards, and controlling construction, operation, and maintenance as are used for permanent transportation system roads.

- (c) Roads which access or traverse these land types may be closed seasonally to prevent resource damage.

6. Temporary roads that have been evaluated through the NEPA process are permitted.

7. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service. Vegetation shall be reestablished within one year.

**PROTECTION**

1. Plan pest control alternatives to be biologically selective, cost beneficial and to have no irreversible adverse effect on the environment.

2. **Suppress pests when outbreaks threaten managed resources and/or users. Use methods that minimize site disturbance.**

3. **Utilize Integrated Pest Management strategies to prevent unacceptable damage in visual corridors. Manual, mechanical and cultural methods are emphasized.**

4. **Provide a moderate level of fire prevention activities consisting of: public contact through the use of media and personal contact at campgrounds and dispersed recreation areas; and fire prevention signing at campgrounds, rest areas, main road junctions, information centers and local businesses.**

5. Use prescription fire to obtain the desired ecological characteristics of the area.

6. Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.
7. ***Hazard reduction activities will be compatible with management area objectives.***
8. ***Design fuel breaks to meet the natural characteristics of the area.***
9. ***Integrate fuel break construction with vegetation management projects.***
10. Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.
11. Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.

## MANAGEMENT STRATEGY 10

### WILD RIVER

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#### GOAL

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Manage the area to protect Wild River resource values.

#### DESCRIPTION

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This strategy can be applied only to the Upper Rogue River corridor from Crater Lake National Park boundary to approximately 1/4 mile from the bridge on road 6530.

The corridor will include the river and 1/4 mile on each side in a primitive and wild state.

Wild river areas are those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

When conflicts exist between the Wild River and other resources, the conflict will be resolved in favor of the Wild River resource, subject to rights under law and regulation.

#### STANDARDS AND GUIDELINES

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##### RECREATION - SEMI-PRIMITIVE NON-MOTORIZED

1. ***Manage the area for Retention Visual Quality Objective. Assess the impacts to visual resources in all project environmental analysis. Specifically address how the visual quality objective will be met.***
2. ***Allow for dispersed recreation activities such as hunting, fishing and hiking.***
3. ***Manage trails and dispersed occupancy sites in a manner not in conflict with Wild River resource values.***

4. ***Manage and control public use as necessary to protect Wild River resource values.***
5. Rehabilitate deteriorated recreation use areas.
6. ***Provide for only primitive type recreation facilities.***
7. ***Permit only non-motorized forms of travel except on existing roads at occasional points at the edges of the area.***
8. ***Permit only pedestrian use on the Upper Rogue River trail.***
9. Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.
10. Protect Special Dispersed Features from adverse impacts until management of the special dispersed feature is addressed in an environmental analysis.
11. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.
12. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.

13. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
14. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
15. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
16. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
17. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
18. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

## WILDERNESS

1. This element is not applicable under a Wild River strategy.
2. Project plans will assure that wilderness boundaries are not violated.

## WILDLIFE, FISH AND PLANTS

1. Permit wildlife and fish projects that do not conflict with Wild River resource values.
2. Existing and Proposed Endangered, Threatened and Sensitive Species

Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out,

protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

3. Management practices for some selected species are as follows:

- (a) Northern Spotted Owl - Manage this species under the standards and guidelines established in the ROD for the Supplement to the Environmental Impact Statement for an amendment to the Pacific Northwest Regional Guide. In the event that a pair of northern spotted owls are found in an area, consideration will be given to (1) the need to improve the distribution of older forest ecosystems for all associated plant and animal species; (2) providing insight into management of spotted owl habitat areas (SOHA) through experimental habitat manipulation. During the planning and scheduling phase of any project activity that may impact spotted owl habitat, conduct a biological evaluation in order to determine the degree of impact and to provide for protective measures.
- (b) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.
- (c) Goshawk-Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas

and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (d) Woodpeckers - (Cavity Nesters) Cavity nesting habitat will be allowed to occur at natural levels in coniferous forest lands. This should provide for 100 percent of the potential population levels of cavity nesting species. This may require leaving green trees standing as well in order to maintain the snags through the rotation. Soft snags will not be removed except for protection or human safety.
- (e) Resident Trout - Water quality law establishes a level of aquatic resource management that will maintain the Forest's fisheries habitat at a level capable of sustaining or exceeding minimum viable populations for the various species of resident fish. Maintain existing fish habitat capability. Coordinate land management activities with Oregon Department of Fish and Wildlife objectives. Natural debris, plus trees needed for a future supply, will be maintained and managed to 1) enhance stream channel and bank structure so as to protect water quality, and 2) provide structural fish habitat to meet the objectives of small habitat ca-

pability or resident fish populations provided for in the Forest Plan.

- (f) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (g) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

## RANGE

1. Permit livestock grazing.
2. Provide annual permittee plans for livestock distribution and use patterns. Where conflicts cannot be resolved or mitigated, relocation or removal of livestock will be considered.



3. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
4. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources and between agencies, permittees and other landowners.
5. Allow range improvements.
6. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utilization standards which are lower or rarely

higher when associated with intensive grazing systems and specific vegetation management objectives which will meet resource management objectives and the intent of the management strategy. The standards include cumulative annual use by big game and livestock. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or twig length (e.g. utilization is 50 percent if 50 out of 100 leaders are browsed). Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory condition is anything not meeting satisfactory conditions. Allowable use of available forage (Maximum percent of annual utilization by big game and livestock) is:

#### RANGE MANAGEMENT INTENSITY

	Minimum 1/	Extensive 2/	Intensive 3/
<b>Forested Areas</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Grasslands</b>			
-Satisfactory Condition	50%	55%	60%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Shrublands</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-25%	0-30%	0-35%

- 1/ Minimum - Minimum amount of improvements; simple grazing system.  
 2/ Extensive - Most or all improvements are non-structural; rotation grazing systems used.  
 3/ Wide variety of structural and non-structural improvements; rotation grazing systems used.

#### TIMBER

1. *Schedule or program no timber harvest.*
2. *Salvage timber in catastrophic fire or insect epidemic situations if removal does not seriously impair wild and primitive values.*
3. *Design salvage timber sales with assistance of a landscape architect.*
4. Rehabilitate and reconstruct developments and resources that have been impacted by timber sale activities.
5. All silvicultural prescriptions will be approved by a certified silviculturist and reviewed by the District Ranger.
6. The logging system design for timber sales will be reviewed by logging systems specialists designated by the Forest Supervisor. Re-

view for feasibility, silvicultural compatibility and economics.

7. For purposes of reforestation after salvage harvest, maintain a blend of tree species approximating natural stands. In seed collections, no seed lot shall be represented by fewer than 15 families of trees of that species, well distributed across the breeding zone. In addition, no family of parent trees shall represent greater than 20 percent of a seed lot. Although any given plantation may be planted to a single species, strive for a natural seed source from a variety of species.
8. ***Fuelwood gathering is not permitted except for on site individual use.***
9. Utilization standards for timber harvested will meet the standards as stated in the Pacific Northwest Regional Guide, Standards and Guidelines 4-2 and in Table 3-6. Standards in timber sale contracts may vary depending on markets and costs of harvesting.

## WATER

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.
2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the State of Oregon, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.

- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.
- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.
- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between: 1) the Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal lands).

3. The following requirements will be employed in project implementation when proposed projects may affect streams:

- (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;

- (b) Consider relation of project to riparian areas (all streams classed as I, II and III are allocated to Strategy 26);
  - (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
  - (d) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.
4. Acquire water rights for development of non-reserved uses.
  5. Design project water monitoring as appropriate.
  6. Allow for watershed restoration projects.
  7. **Permit only unobtrusive, natural-appearing water improvement structures.**
  8. In-stream flows on National Forest lands should be protected through critical analysis of proposed water uses, diversion and transmission applications, and renewal of permits.
  9. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.

## MINERALS

1. **Prohibit development of aggregate sources.**
2. **Prohibit energy source development.**
3. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made

as a result of appropriate environmental analyses.

4. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
5. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.
6. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

## HUMAN AND COMMUNITY DEVELOPMENT

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.
3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

**LANDS**

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. ***Permit continuation of current management of State Highways within existing rights-of-way.***
3. ***Utility corridors are not compatible with this management area.***
4. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.
5. Establish and maintain property boundaries on lands administered by the Forest Service.

**SOILS**

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. No more than 10 percent of an activity area should be compacted, puddled or displaced upon completion of project (not including permanent roads or landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices, including roads and landings. Permanent recreation facilities or other permanent facilities are exempt.
4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.

5. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory:
  - (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils.
  - (b) Thirty percent exposure on high or severe erosion hazard soils.
  - (c) Fifteen percent exposure on very high or very severe erosion hazard soils.
6. ***Any soil disturbing or rehabilitation projects requiring revegetation will use plant species native to the area.***
7. Rehabilitate adversely impacted sites.

**FACILITIES**

1. ***The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Off-Road Travel Criteria. These in turn will be used to develop:***
  - (a) ***Trail Design Elements and Standards,***
  - (b) ***Trail Maintenance Plans,***
  - (c) ***Off-Road Vehicle Management Strategies,***
  - (d) ***Travel Maps and***
  - (e) ***Closure Orders.***
2. ***Existing roads shall be obliterated and properly drained. Vegetation shall be reestablished within one year.***
3. ***Signing will be compatible with Wild River resource values.***

4. ***Facilities will be constructed and maintained with native or natural appearing materials.***

#### PROTECTION

1. Plan pest control alternatives to be biologically selective, cost beneficial and to have no irreversible adverse effect on the environment.
2. ***Provide a low level of prevention activities limited primarily to public contact through patrol and fire prevention signing at campgrounds, rest areas, main access road junctions and information centers.***
3. Use prescription fire to obtain desired ecological characteristics of the area.
4. Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.

5. ***Hazard reduction activities will be compatible with management area objectives.***
6. Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.
7. Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.
8. ***All search and rescue operations will be conducted in accordance with the Rogue River National Forest search and rescue plan. Motorized equipment will be used in search and rescue operations only with Forest Supervisor approval.***

## MANAGEMENT STRATEGY 11

### SCENIC RIVER

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#### GOAL

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Manage the area to protect Scenic River resource values.

#### DESCRIPTION

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This strategy can be applied only to the upper Rogue River corridor.

The corridor will include the river and 1/4 mile on each side in a near natural setting.

Scenic river areas are those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

When conflicts exist between the Scenic River and other resources, the conflict will be resolved in favor of the Scenic River resource, subject to rights under law and regulation.

This area does not include class I, II and III streams, or their associated riparian zones.

#### STANDARDS AND GUIDELINES

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##### RECREATION - ROADED NATURAL

1. ***Manage the area for Retention Visual Quality Objective. Assess the impacts to visual resources in all project environmental analysis. Specifically address how the visual quality objective will be met.***
2. ***Allow for dispersed recreation activities such as hunting, fishing and hiking.***
3. ***Manage trails and dispersed occupancy sites in a manner not in conflict with Scenic River resource values.***

4. ***Manage and control public use as necessary to protect Scenic River resource values.***
5. ***Rehabilitate deteriorated recreation use areas.***
6. ***Permit only pedestrian use on the Upper Rogue River trail.***
7. ***Provide for motorized vehicle access at points along the river.***
8. ***Restrict motorized vehicle travel to roads and designated access trails.***
9. ***Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.***
10. ***Protect Special Dispersed Features, including trails, from adverse impacts until management of the special dispersed feature is addressed in an environmental analysis.***
11. ***Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.***
12. ***Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.***

13. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
14. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
15. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
16. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
17. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
18. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

#### **WILDERNESS**

1. This element is not applicable under a Scenic River management strategy.
2. Project plans will assure that wild boundaries are not violated.

#### **WILDLIFE, FISH AND PLANTS**

1. Permit wildlife and fish projects that do not conflict with Scenic River resource values.
2. Existing and Proposed Endangered, Threatened and Sensitive Species

Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

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- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out,

protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

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- (b) Osprey - Protect active nests during the nesting season. Land management activities having adverse poten-

tial impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.

- (c) Goshawk-Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (d) Woodpeckers - (Cavity Nesters) Leave sufficient wildlife trees (hard snags or green trees designated to become snags) in coniferous forest lands to provide for at least 60 percent of the potential population levels for cavity nesting species. The distribution of numbers and size class necessary to meet 60% per 100 acres is as follows:



## Siskiyou and Cascade Mixed Conifer

<u>Size</u>	<u>Number</u>
15+	179
17+	36
25+	3
Total	218

## Siskiyou and Cascade True Fir

<u>Size</u>	<u>Number</u>
15+	143
17+	11
25+	3
Total	157

Species distribution should be representative of the site's original stand. Trees selected for retention should maximize use of the stand's cull component. If the proper number and size of trees do not exist in the stand to be treated, select the proper number from the next lower size class. (i.e. if 25" trees are not available go to 17" trees). Material that satisfies the need for down woody material recruitment will come from existing down material, down woody material that is the result of a silvicultural treatment and from the trees that are designated to meet standing wildlife tree requirements. The long-term goal for large woody material (LWM) is 10 to 20 pieces of class I and II logs per acre, and all existing class III, IV and V logs, except for incidental amounts removed during management activities. Additional green merchantable trees will not be designated unless none of the other categories exist. The expected life span of snags or dead trees in mixed conifer working groups is 30 years and in true fir working groups the life span is 20 years. The silvicultural prescription will describe the total number, size and species of wildlife trees that will be required through the next full rotation of the stand being treated. Wildlife and down woody material requirement will be included as part of the vegetative (silvicultural) prescrip-

tion for each stand. Information for the prescription will be provided by a wildlife biologist based on site by site needs. A certified silviculturist will validate the data and include it in the preparation of the final vegetative (silvicultural) prescription that implements all the interdisciplinary requirements. The logging system required, reforestation needs, slash disposal requirements and site preparation needs should be compatible with the wildlife tree distribution needs. Primary cavity excavator habitat will be met on areas no larger than 60 acres including adjacent existing harvest units. The objective is to provide well distributed habitat, and to allow adjacent stands to provide the needed wildlife trees for past harvest units where current standards were not met. Where past harvest units were very large, the adjacent stands within 900 feet will be managed at higher wildlife tree levels to bring the overall area to at least the 40 percent level. When the past harvest units were of such magnitude that the above methods cannot bring the entire area to the 40 percent level, the remaining shortage will not be provided for, but will be tracked for the purpose of monitoring the forest plan. Selection of wildlife trees to make up for past deficits will meet the same selection criteria as in newly treated stands. Green merchantable trees will not be girdled to create wildlife snags, regardless of the situation, until (5-7) years after project completion (sale closure), in order to capture any mortality that may occur during that time. Operational accomplishment will be included as a monitoring item in the forest plan.

- (e) Resident Trout - Water quality law establishes a level of aquatic resource management that will maintain the Forest's fisheries habitat at a level capable of sustaining or exceeding minimum viable populations for the various species of resident fish. Maintain existing fish habitat capability. Coordinate

land management activities with Oregon Department of Fish and Wildlife objectives. Natural debris, plus trees needed for a future supply, will be maintained and managed to 1) enhance stream channel and bank structure so as to protect water quality, and 2) provide structural fish habitat to meet the objectives of small habitat capability or resident fish populations provided for in the Forest Plan.

- (f) Deer and Elk - Maintain summer range to provide forage, hiding and thermal cover at or above the 20 percent level. Timber harvesting and/or thinning should provide hiding and thermal cover between treatment areas and roads with continuous vehicle use. Hiding cover should be dense enough to hide 90 percent of a deer or elk from view. Hiding cover need not be continuous but gaps between screens should not exceed one-quarter of a mile. A restricted operating period from April 1 to June 30 may be imposed in identified deer or elk fawning or calving areas.
- (g) Bald Eagle - Develop a Bald Eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest;

3) Primary and Secondary Zones between January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (h) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary

zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

## RANGE

1. **Permit livestock grazing on transitory ranges under the following situations:**
  - (a) ***Where forage occurs in natural stands or as a result of site disturbance and/or timber canopy removal on a periodic basis.***
  - (b) ***Where disturbed sites and/or areas under timber management can be seeded with species which improve forage production and does not restrict tree establishment and growth. (FSM 2521.02, RR Supplement #6, 2/73).***
  - (c) ***On forest plantations when livestock will not damage the young trees.***
2. Permit livestock grazing on primary and secondary range.
3. Provide annual permittee plans for livestock distribution and use patterns. Where conflicts cannot be resolved or mitigated, relocation or removal of livestock will be considered.
4. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
5. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.
6. Allow range improvements.
7. ***Allow increases in permitted grazing use to capture increases in transitory range caused by timber cutting where this is compatible with Scenic River management objectives.***
8. Prescribe kind and amount of grass seeding in silviculture prescriptions.
9. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utilization standards which are lower or rarely higher when associated with intensive grazing systems and specific vegetation management objectives which will meet resource management objectives and the intent of the management strategy. The standards include cumulative annual use by big game and livestock. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or twig length (e.g. utilization is 50 percent if 50 out of 100 leaders are browsed). Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory condition is anything not meeting satisfactory conditions. Allowable use of available forage (Maximum percent of annual utilization by big game and livestock) is:

## RANGE MANAGEMENT INTENSITY

	Minimum 1/	Extensive 2/	Intensive 3/
<b>Forested Areas</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Grasslands</b>			
-Satisfactory Condition	50%	55%	60%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Shrublands</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-25%	0-30%	0-35%

- 1/ Minimum - Minimum amount of improvements; simple grazing system.  
 2/ Extensive - Most or all improvements are non-structural; rotation grazing systems used.  
 3/ Wide variety of structural and non-structural improvements; rotation grazing systems used.

## TIMBER

1. Timber harvest will be scheduled.
2. When trees are cut for timber production objectives, the cutting shall be made in a way to assure that technology and knowledge exist to adequately restock the site within five years after final harvest (36 CFR 219.27(c)(3)).
3. Timber harvesting shall only occur on lands classified as suitable for timber production except for salvage sales, sales necessary to protect other multiple-use values or activities that meet other objectives if the Forest Plan establishes that such actions are appropriate (36 CFR 219.27(c)(1)).
4. **Treat timber stands to achieve desired visual characteristics** through the following practices:
  - (a) Site preparation - chemical, mechanical, biological, manual and prescribed fire.
  - (b) Tree improvement (genetics).
  - (c) Reforestation by planting. Random natural seedlings will count towards reaching desired stocking.

- (d) Growing stock protection from animals, insects and diseases.
- (e) Release and weeding - chemical, mechanical, biological, manual and prescribed fire.
- (f) Precommercial thinning.
- (g) Fertilization.
- (h) Commercial thinning.
- (i) Salvage mortality as necessary.
- (j) Final Harvest - even-aged silvicultural system using shelterwood, seed tree or clearcut methods. The shelterwood method will probably be the most common; however, selection will be determined by the environmental analysis process and documented in site-specific silvicultural prescription.

- \* (x) *Pruning*
5. The even-aged silvicultural system will be the most commonly used system in coniferous forests. The uneven-aged silvicultural system may be used when healthy, fully stocked, uneven aged stands exist or can be created by identified treatments within a defined time period. The selection of the appropriate silvi-

cultural system will be guided by the following criteria:

- (a) Must permit the production of sufficient volume of marketable trees to permit utilization of all trees which meet utilization standards and are designated for harvest.
  - (b) Must permit the use of an available and acceptable logging method.
  - (c) Must be capable of providing special conditions when required by critical soil conditions or needed to achieve management objectives.
  - (d) Must permit control of existing or potential vegetation to a degree that establishment of numbers of trees and rates of growth as identified in site-specific silvicultural prescriptions for harvest areas can be achieved.
  - (e) Must promote stand structure and species composition which avoids serious risk of damage from mammals, insects, disease or wildfire and will allow treatment of existing insect, disease or fuel conditions.
  - (f) Must meet resource and vegetation management objectives.
6. **Utilize uneven-aged management if specific site and vegetation characteristics lend the area to this type of management.**
  7. **Manage the area for an overall mix of size classes of trees. The following mix of size class types should be achieved as the overall long term objective for the viewshed:**

<u>Size Class</u>	<u>% of Land Area</u>
30"-36"	30
22"-30"	30
16"-22"	15
9"-16"	15
0"- 9"	10

8. **Emphasize the viewing of large diameter Douglas-fir, ponderosa pine, sugar pine or**

**Shasta fir species with a target diameter at breast height (DBH) of 36 inches. Manage for a total of 15 target trees per acre at that size. Emphasize other species where appropriate. Plan for dispersal of target trees to give the overall character of large trees to the whole area.**

9. **Design "created openings" to meet visual quality objective. The normal maximum size of "created openings" is 3 acres along roads and 1/2 acre along trails. Unit size applies to all even-aged regeneration units. Exceptions can be designed through the environmental analysis process.**
10. **A harvested area of commercial forest will no longer be considered a created opening for visual purposes when trees are 20 feet in height.**
11. **Provide a variety of views into the forest and the adjacent landscape.**
12. **Provide irregular shaped openings to create the overall impression of an undisturbed landscape.**
13. **Created openings will be no more than 3.3 percent of the viewed area per decade with a maximum of 6.6 percent at any one time.**
14. **Permit a maximum disturbance along a route of not more than 600 ft. per mile and not more than 300 feet continuously.**
15. **Emphasize a mix of deciduous shrub and ground cover species such as dogwood or vine maple.**
16. **Utilize irregular spacing when thinning.**
17. **Create irregular patterns with plantings with a blend of tree species, approximating natural stands. In seed collections, no seed lot shall be represented by fewer than 15 families of trees of that species, well distributed across the breeding zone. In addition, no family of parent trees shall represent greater than 20 percent of a seed lot. Although any given plantation may be planted to a single species, strive for a natural seed source from a variety of species.**

18. Emphasize a high edge per-acre ratio on all even-aged units.
19. Fuelwood and other miscellaneous forest products:
  - (a) Make miscellaneous forest products such as poles, posts, boughs, Christmas trees, house-logs, etc., available on an as-needed basis consistent with the resource objectives of this management area.
  - (b) Provide access to potential fuelwood when appropriate. Bring fuelwood to convenient points in timber sale or thinning areas. Utilize appropriate timber sale clauses or modify fuels management prescriptions to meet this objective.
  - (c) Allow commercial fuelwood contracts for slash disposal, thinning and site preparation.
  - (d) Open slash areas to fuelwood gathering prior to traditional disposal methods.
  - (e) Leave slash as a fuelwood source where there is no conflict with resource activity.
  - (f) Consider using the fuelwood program as a means to meet silvicultural objectives in appropriate areas, such as low productivity stands or other stands prior to reaching commercial size.
  - (g) Consider the season of year and access when implementing a fuelwood program. The public will be encouraged to burn dry wood.
  - (h) Document fuelwood availability for public uses in project environmental analysis.
  - (i) Be responsive to the needs of the public for fuelwood.
  - (j) Create a Forest fuelwood and miscellaneous products policy to include fuelwood inventory.
20. ***Stumps visible from and within 200 feet of critical travel routes or viewpoints will be a maximum height of 12 inches on the high side of the stump.***
21. ***Rehabilitate and reconstruct developments and resources that have been impacted by timber sale activities.***
22. All silvicultural prescriptions will be approved by a certified silviculturist and reviewed by the District Ranger.
23. ***Reforestation, precommercial thinning and release to meet recommended stocking will be addressed with site-specific silvicultural prescriptions.***
24. The logging system design for timber sales will be reviewed by logging systems specialists designated by the Forest Supervisor. Review for feasibility, silvicultural compatibility and economics.
25. ***All silvicultural prescriptions and logging plans will be reviewed by a landscape architect for feasibility, silvicultural compatibility and the ability to meet Scenic River management objectives.***
26. Utilization standards for timber harvested will meet the standards as stated in the Pacific Northwest Regional Guide, Standards and Guidelines 4-2 and in Table 3-6. Standards in timber sale contracts may vary depending on markets and costs of harvesting.

## UTILIZATION STANDARDS

Type Tree	Minimum dbh.	Minimum Top dib.
First Decade Existing mature trees, except lodgepole pine (first and future decades)	9	6
Existing commercial thinning size trees and lodgepole pine	7	4
Future Decades All species, except surviving stands of first decade existing mature.	7	4

## WATER

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.
2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the State of Oregon the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.
- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.

- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.
- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between 1) The Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78.

3. The following requirements will be employed in project implementation when proposed projects may affect streams:

- (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;
- (b) Consider relation of project to riparian areas (all streams classed as I, II and III are allocated to Strategy 26);
- (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
- (d) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.

4. Acquire water rights for development of non-reserved uses.

5. Design project water monitoring as appropriate.

6. Allow for watershed restoration projects.

7. ***Permit only unobtrusive, natural-appearing water improvement structures.***

8. In-stream flows on National Forest System lands should be protected through critical analysis of proposed water uses, diversion and transmission applications, and renewal of permits.

9. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.

## MINERALS

1. ***Rehabilitate aggregate source sites to meet Retention Visual Quality Objective.***

2. ***Prohibit development of aggregate sources.***

3. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.

4. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.

5. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.

6. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

## HUMAN AND COMMUNITY DEVELOPMENT

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.

2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.

3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sa-



cred objects, and the freedom to worship through traditional ceremonies and rites.

4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

## LANDS

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.
3. Develop rights-of-ways as necessary to implement projects.
4. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.
5. Establish and maintain property boundaries on lands administered by the Forest Service.
6. Utilize scenic easements to insure private land within the area is managed to meet management area direction.

## SOILS

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to re-

sult in detrimental displacement, compaction, mass wasting or erosion.

3. No more than 10 percent of an activity area should be compacted, puddled or displaced upon completion of project (not including permanent roads or landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices, including roads and landings. Permanent recreation facilities or other permanent facilities are exempt.

4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.

5. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory:

- (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils.
- (b) Thirty percent exposure on high or severe erosion hazard soils.
- (c) Fifteen percent exposure on very high or very severe erosion hazard soils.

6. Rehabilitate adversely impacted sites.

## FACILITIES

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:

- (a) Road and Trail Design Elements
  - (b) Road and Trail Design Standards
  - (c) Road Maintenance Levels
  - (d) Road and Trail Maintenance Plans
  - (e) Road Traffic Management Strategies
  - (f) Road Restriction Orders and Traffic Control Devices
  - (g) Off-Road Vehicle Management Strategies
  - (h) Travel Maps
  - (i) Closure Orders
2. Within sensitive soil resource inventory land types as shown in Management Strategy 21, the following guidelines apply:
- (a) Geotechnical input is required for road location, design, and management.
  - (b) Temporary roads will be planned, located, surveyed, designed, constructed, and operated utilizing the same procedures for reviewing, decisions, selecting design elements and standards, and controlling construction, operation, and maintenance as are used for permanent transportation system roads.
  - (c) Roads which access or traverse these land types may be closed seasonally to prevent resource damage.
3. Temporary roads that have been evaluated through the NEPA process are permitted.
4. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service. Vegetation shall be reestablished within one year.
5. **Prohibit new water resource projects such as dams which restrict free flowing river characteristics.**
6. **Allow new bridges only if there is overriding need and no other practical location exists.**
7. **New bridges will be designed with assistance of landscape architect.**
8. **Prohibit major facility developments such as interpretive centers or administrative sites.**
9. **Remove detracting facilities that do not meet Retention Visual Quality Objective.**
10. **Signing will be compatible with Scenic River resource values.**
11. **Facilities will be constructed and maintained with native or natural appearing materials.**

## PROTECTION

- 1. Plan pest control alternatives to be biologically selective, cost beneficial and to have no irreversible adverse effect on the environment.
- 2. Suppress pests when outbreaks threaten managed resources and/or users. Use methods that minimize site disturbance.
- 3. **Utilize Integrated Pest Management strategies to prevent unacceptable damage in visual corridors. Manual, mechanical and cultural methods are emphasized.**
- 4. **Provide a moderate level of fire prevention activities consisting of: public contact through the use of media and personal contact at campgrounds and dispersed recreation areas; and fire prevention signing at campgrounds, rest areas, main road junctions, information centers and local businesses.**
- 5. Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.
- 6. **Hazard reduction activities will be compatible with management area objectives.**

7. ***Design fuel breaks to meet the natural characteristics of the area.***
8. ***Integrate fuel break construction with vegetation management projects.***
9. Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.
10. Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan. Use modified suppression tactics to protect scenic river values.
11. ***All search and rescue operations will be conducted in accordance with the Rogue River National Forest search and rescue plan. Motorized equipment will be used in search and rescue operations only with Forest Supervisor approval.***

## MANAGEMENT STRATEGY 12

### BOTANICAL AREA

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#### GOAL

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Protect and enhance exceptional botanical values. Encourage compatible scientific, educational and recreational use.

#### DESCRIPTION

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Botanical areas are authorized under 36 CFR 294.1 and classified as Special Recreation Designations (FSM 2370). A botanical area is defined as "a unit of land that contains plant specimens, plant groups or plant communities that are significant because of their form, occurrence, habitat, location, life history, arrangement, ecology, rarity or other features (FSM 2372.05). On the Rogue River National Forest, botanical area candidates were identified as those areas containing concentrations of rare species, exceptionally rich and diverse floras, or plant communities rarely found in an undisturbed condition.

Botanical areas are an important component of the Forest's sensitive species management program. They can also provide a cornerstone for maintaining biological diversity on the Forest.

Many of these areas are in the crest zone on the boundaries with Siskiyou and Klamath National Forests. Coordinated planning for botanical areas with adjacent forests is underway.

Candidate botanical area descriptions, locations and analysis are given in the FEIS Appendix F. Areas identified but not recommended are also discussed there.

When conflicts exist between botanical area management and other resources, the conflict will be resolved in favor of the botanical resource, subject to rights under law and regulation.

#### STANDARDS AND GUIDELINES

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##### RECREATION - SEMI-PRIMITIVE NON-MOTORIZED/ROADED NATURAL

1. ***Manage the area for at least Retention Visual Quality Objective. Assess the impacts to visual resources in all project environmental analysis. Specifically address how the visual quality objective will be met.***
2. ***Allow for dispersed recreation activities such as hunting, fishing and hiking.***
3. ***Gathering of plants or plant parts will not be allowed except by permit for scientific or educational purposes.***
4. ***Manage trails and dispersed occupancy sites in a manner not in conflict with special interest area resource values.***
5. Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.
6. ***Motorized vehicles will be allowed only on roads except in emergency situations. The exception is that snowmobile use may be allowed when snow depth is sufficient.***
7. Rehabilitate deteriorated recreation use areas.
8. ***Develop a Special Area plan for each area.***
9. Protect Special Dispersed Features, including trails, from adverse impacts until management of the special dispersed feature is addressed in an environmental analysis.
10. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the

investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.

11. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
12. Assess the impacts of a proposed action to determine the effect of the project upon potentially, or known, significant cultural resources.
13. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
14. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
15. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
16. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
17. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

## WILDERNESS

1. If wilderness areas are established on land that includes botanical areas, the two may be managed concurrently.
2. Project plans will assure that wilderness boundaries are not violated.

## WILDLIFE, FISH AND PLANTS

1. ***Manipulation of the wildlife and fish habitat will be allowed as long as it maintains a natural appearance and does not conflict with the purpose or objectives of the area.***
2. Existing and Proposed Endangered, Threatened and Sensitive Species

Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;

- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

3. Management practices for some selected species are as follows:

- (a) Northern Spotted Owl - Manage this species under the standards and guidelines established in the ROD for the Supplement to the Environmental Impact Statement for an amendment to the Pacific Northwest Regional Guide. In the event that a pair of northern spotted owls are found in an area, consideration will be given to (1) the need to improve the distribution of older forest ecosystems for all associated plant and animal species; (2) providing insight into management of spotted

owl habitat areas (SOHA) through experimental habitat manipulation. During the planning and scheduling phase of any project activity that may impact spotted owl habitat, conduct a biological evaluation in order to determine the degree of impact and to provide for protective measures.

- (b) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.
- (c) Goshawk - Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (d) Woodpeckers - (Cavity Nesters) Cavity nesting habitat will be allowed to occur at natural levels on coniferous forest lands. This should provide 100 percent of the potential population level for cavity nesting species. This may require leaving green trees standing as well, in order to maintain the snags

throughout the rotation. Soft snags will not be removed except for protection or human safety. Snags should be uniformly distributed insofar as practical. Land areas containing activities which impact amounts of large woody material (LWM) on the site shall have LWM management prescription(s). The prescription will not only be site specific but will also consider maintenance of LWM in perpetuity. At a minimum, a "moderate" amount of LWM will be left after project completion. The moderate range is 10 to 20 pieces of Class I and II logs per acre and all existing Class III, IV and V logs, except for incidental amounts removed during management activities.

- (e) Resident Trout and Steelhead - Water quality law establishes a level of aquatic resource management that will maintain the Forest's fisheries habitat at a level capable of sustaining or exceeding minimum viable populations for the various species of anadromous and resident fish. Cold water production for both on and off Forest fish needs is identified as a principal objective for the Forest's streams. Maintain existing fish habitat capability and develop fish habitat improvement projects to fully utilize potential smolt production capability of Forest anadromous streams and resident fish in other streams and lakes. Coordinate land management activities with the California Department of Fish and Game and Oregon Department of Fish and Wildlife objectives.
- (f) Bald Eagle - Develop a Bald Eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary

Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles; 3) Primary and Secondary Zones between January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (g) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Main-

tain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

4. Natural debris, plus trees needed for a future supply, will be maintained and managed to:
  - (a) Maintain or enhance stream channel and bank structure so as to protect water quality;
  - (b) Provide structural fish habitat to meet the objective provided for in the Forest Plan.

## RANGE

1. ***Livestock grazing will be controlled in order to benefit or maintain the botanical resource. This control can range from limited or no livestock grazing to seasonal adjustments to benefit the target species. Forage utilization standards will be based on this direction.***
2. ***Range improvements and vegetative manipulation will not be permitted unless they will benefit the botanical resource. No exotic species will be seeded or placed in botanical areas.***
3. ***Provide fences and stock control devices when necessary to protect resource.***

4. Provide annual permittee plans for livestock distribution and use patterns which reflect management direction.
5. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
6. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.

## TIMBER

1. ***There will not be any scheduled volume from these areas.***
2. ***Timber harvest can only take place if it benefits the botanical resources. The exception will be that timber harvest will be allowed to prevent the spread of insects and disease to areas managed for other purposes or to meet the management area objectives. Salvage operations will require a project environmental analysis and be designed to minimize impact on resources. Restoration of such an area will be designed to return it to a natural state.***

## WATER

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.
2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as



amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.
- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.
- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.
- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described Memorandums of Understanding between 1) The Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing

Activities on Federal lands) and 2) The State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.

3. The following requirements will be employed in project implementation when proposed projects may affect streams:
  - (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;
  - (b) Consider relation of project to riparian areas (all streams classed as I, II and III are allocated to Strategy 26);
  - (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
  - (d) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.
4. Acquire water rights for development of non-reserved uses.
5. Design project water monitoring as appropriate.
6. Allow for watershed restoration projects that are compatible with management area objectives.
7. In-stream flows on National Forest System lands should be protected through critical analysis of proposed water uses, diversion and transmission applications, and renewal of permits.
8. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.

**MINERALS**

1. ***Prohibit aggregate source development.***
2. ***Prohibit expansion of existing aggregate sources.***
3. ***Mineral withdrawal will be considered on an area-by-area basis.***
4. ***Rehabilitate aggregate sources when they are closed.***
5. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
6. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
7. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; meet management area objectives and insure that disturbed areas are reclaimed insofar as practicable to a natural condition.
8. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

**HUMAN AND COMMUNITY DEVELOPMENT**

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to

increase awareness and participation will be used.

3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

**LANDS**

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.
3. Insure that proposed projects do not have adverse effect on lands included in active exchanges.
4. Discourage new rights-of-ways.
5. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.
6. Establish and maintain property boundaries on lands administered by the Forest Service.

**SOILS**

1. Address the potential for detrimental soil displacement, compaction, puddling, severe

burning, mass wasting and surface soil erosion in project environmental analysis.

2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.
4. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory:
  - (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils.
  - (b) Thirty percent exposure on high or severe erosion hazard soils.
  - (c) Fifteen percent exposure on very high or very severe erosion hazard soils.
5. Rehabilitate adversely impacted sites.
6. ***Erosion control and rehabilitation projects that utilize seeds, cuttings or plants will use only species that are native to the area.***

## FACILITIES

1. ***New road locations proposed in botanical areas will be evaluated for their impact on botanical and recreational values. Alternative locations outside botanical areas will be sought and chosen when feasible.***
2. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance,

and Off-Road Travel Criteria. These in turn will be used to develop:

- (a) Road and Trail Design Elements
  - (b) Road and Trail Design Standards
  - (c) Road Maintenance Levels
  - (d) Road and Trail Maintenance Plans
  - (e) Road Traffic Management Strategies
  - (f) Road Restriction Orders and Traffic Control Devices
  - (g) Off-Road Vehicle Management Strategies
  - (h) Travel Maps
  - (i) Closure Orders
3. Within sensitive soil resource inventory land types as shown in Management Strategy 21, the following guidelines apply:
    - (a) Geotechnical input is required for road location, design, and management.
    - (b) Temporary roads will be planned, located, surveyed, designed, constructed, and operated utilizing the same procedures for reviewing, decisions, selecting design elements and standards, and controlling construction, operation, and maintenance as are used for permanent transportation system roads.
    - (c) Roads which access or traverse these land types may be closed seasonally to prevent resource damage.
  4. Temporary roads that have been evaluated through the NEPA process are permitted.
  5. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service. Vegetation shall be reestablished within one year.

## PROTECTION

1. Plan pest control alternatives to be biologically selective, cost beneficial and to have no irreversible adverse effect on the environment.
2. ***Provide a low level of prevention activities limited primarily to public contact through patrol and fire prevention signing at campgrounds, rest areas, main access road junctions and information centers.***
3. Use prescription fire to obtain desired ecological characteristics of the area.
4. Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.
5. Hazard reduction activities will be compatible with management area objectives.
6. ***Design fuel breaks to meet the natural characteristics of the area.***
7. Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.
8. Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.

## MANAGEMENT STRATEGY 13

### WILDERNESS

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#### GOAL

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Manage the area to protect Wilderness resource values on the Rogue River National Forest and to maintain the natural conditions of each Wilderness.

#### DESCRIPTION

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A Wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of Wilderness is further defined as an area of undeveloped federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological or other features of scientific, educational, scenic or historical value.

Normally, when conflicts exist between Wilderness values and other resources, the conflict will be resolved in favor of the Wilderness resource subject to rights under law and regulation.

#### STANDARDS AND GUIDELINES

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##### RECREATION - PRIMITIVE

1. *Recreation use of Wilderness will be managed according to the Wilderness Act of 1964, Forest Service policies and regula-*

*tions (FSM 2320 and Regional Supplements), and as directed in the two appended Wilderness Implementation Plans for Sky Lakes Wilderness and Red Butte Wilderness. The Limits of Acceptable Change process and other monitoring/management tools will be used to preserve Wilderness values.*

2. *Manage the area for Preservation Visual Quality Objective. Assess the impacts to visual resources in all project environmental analyses. Specifically address how the visual quality objective will be met.*
3. *Construct, operate and maintain trails in a manner (a) not in conflict with Wilderness resource values, (b) in agreement with Wilderness Resource Spectrum (WRS) class standards, and (c) to meet wilderness management standards.*
4. *Manage and control public use as necessary to protect Wilderness resource values; examples of specific management measures may include: adjustments in group-size limits, designate or close specific sites to camping/grazing, Wilderness permit system. The eight major strategies available for managing recreational use problems in Wilderness are:*
  - (a) *reduce use of entire Wilderness.*
  - (b) *reduce use of problem areas.*
  - (c) *modify location of use within problem areas.*
  - (d) *modify the timing of use.*
  - (e) *modify type of use and visitor behavior.*

- (f) **modify visitor expectations.**
  - (g) **increase the resistance of the resource.**
  - (h) **maintain or rehabilitate the resource.**
5. **Prohibit motorized/mechanized (bicycles, etc.) use in Wilderness. Prohibit overnight camping in the Big Butte Springs Watershed.**
  6. Rehabilitate deteriorated recreation use areas.
  7. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.
  8. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. In the case of standing structures, properties that are eligible for the National Register of Historic Places may be maintained (in a manner that minimizes impacts to the wilderness resource) or may be abandoned to deteriorate naturally after following procedures outlined in 36 CFR 800. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
  9. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
  10. Mitigate potential adverse impacts to significant cultural resources by:
    - (a) redesigning the project to avoid damage or disturbance, or
    - (b) implementing appropriate mitigation procedures to reduce the adverse impact to the property.
  11. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
  12. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
  13. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
  14. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

## WILDERNESS

***The RRNF is the lead Forest for Wilderness management/implementation planning for the Sky Lakes and Red Buttes Wildernesses. Implementation Plans, which have been developed with public input during the Forest Planning process, are included in a separate appendix to this Plan.***

## WILDLIFE, FISH AND PLANTS

1. ***Allow the continuance of the aerial fish stocking program. Evaluate the fish stocking program periodically in conjunction with Wilderness management objectives.***
2. ***Allow only natural ecological change to occur to fish and wildlife habitat. The following measures are excepted:***

- (a) ***fish stocking with native or naturalized species in those lakes that have been traditionally stocked,***
- (b) ***hacking of Peregrine falcons.***
- 3. ***Request the Oregon Department of Fish and Wildlife, and the California Department of Fish and Game to coordinate all wildlife and fish management activities with the Rogue River National Forest.***
- 4. Existing and Proposed Endangered, Threatened and Sensitive Species

Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted

to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

## RANGE

- 1. ***Include livestock grazing in accordance with FSM 2320 and Congressional guidelines on Wilderness grazing and with the appended Wilderness implementation plans.***
- 2. ***Allow current use levels to continue unless soil, water, recreation and Wilderness resources are adversely affected.***
- 3. ***Provide annual permittee plans for livestock distribution and use patterns to protect Wilderness values.***
- 4. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.

5. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.
6. Allow range improvements consistent with FSM 2320.
7. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utilization standards which are lower or rarely higher when associated with intensive grazing systems and specific vegetation man-

agement objectives which will meet resource management objectives and the intent of the management strategy. The standards include cumulative annual use by big game and livestock. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or twig length (e.g. utilization is 50 percent if 50 out of 100 leaders are browsed). Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory condition is anything not meeting satisfactory conditions. Allowable use of available forage (Maximum percent of annual utilization by big game and livestock) is:

#### RANGE MANAGEMENT INTENSITY

	Minimum 1/	Extensive 2/	Intensive 3/
<b>Forested Areas</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Grasslands</b>			
-Satisfactory Condition	50%	55%	60%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Shrublands</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-25%	0-30%	0-35%

- 1/ Minimum - Minimum amount of improvements; simple grazing system.  
 2/ Extensive - Most or all improvements are non-structural; rotation grazing systems used.  
 3/ Wide variety of structural and non-structural improvements; rotation grazing systems used.

#### TIMBER

***Timber management activities are not applicable in this management area.***

#### WATER

1. ***Control human and livestock use that has potential to adversely effect water quality.***
2. ***Rehabilitate riparian areas that have been damaged by man's activities.***

3. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.

4. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best



Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.
- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.
- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.
- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between 1) the Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality

Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal lands) and 2) the State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.

**5. Specify the following in environmental analysis when proposed projects affect lakes, streams and springs;**

- (a) ***Restricted distance from water sources.***
- (b) ***Spacing, number and type of stream crossings.***
- (c) ***Erosion control methods.***
- (d) ***Waterbar spacing and location.***
- (e) ***Criteria for requiring stream-course protection and streams meeting these requirements.***
- (f) ***Relation of project to riparian habitat.***
- (g) ***Desired condition of stream bank and channel following the project.***
- (h) ***Location of all springs and methods for protection.***
- (i) ***Timing of operations in relation to runoff patterns and moisture conditions.***

**6. Acquire water rights for development of non-reserved uses.**

- 7. Design project water monitoring as appropriate.
- 8. In-stream flows on National Forest System lands should be protected through critical analysis of proposed water uses, diversion and transmission applications, and renewal of permits.

9. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.
10. ***Comply with the specific direction for management of each of the municipal watersheds as specified in management agreements between the U.S. Department of Agriculture or Forest and municipalities.***

#### MINERALS

1. ***Wilderness is closed to mineral entry and mineral leasing, subject to valid existing rights.***
2. ***Operations in designated Wilderness will be conducted to preserve the wilderness character of the lands involved to the maximum extent possible, compatible with legal rights of claimants and lessees.***
3. ***Prohibit aggregate source development.***
4. ***Prohibit energy leasing in the Medford Watershed portion of this management area.***

#### HUMAN AND COMMUNITY DEVELOPMENT

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.
3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.

4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

#### LANDS

1. Revise all special use permits to be consistent with the direction in this management strategy.
2. ***Utility corridors are not compatible with this management area.***
3. ***Proposed projects located adjacent to Wilderness will fund Wilderness boundary marking to Regional standards.***

#### SOILS

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. ***Any soil disturbing or rehabilitation projects requiring revegetation will use plant species native to the area.***
4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.

#### FACILITIES

1. ***Provide for proper drainage and reestablishment of vegetative cover on fire trails***

*within one year after the end of the activity fire.*

2. *Develop, operate and maintain the forest trail system considering total transportation costs, resource values and environmental effects as detailed in the project environmental analysis.*
3. *Signing will be compatible with Wilderness resource values.*
4. *Facilities will be constructed and maintained with native or natural appearing materials.*
5. *Rehabilitate and "put to bed" existing roads, firelines and the sites of structures which have been removed (after following the historic preservation compliance process of cultural resource evaluation and determination of effect).*
6. *Only electronic sites that are needed for Wilderness administrative purposes are permitted; any such facilities will be located outside of Wilderness whenever possible.*

## PROTECTION

1. *Insect or disease outbreaks will not be artificially controlled, unless it is necessary to protect other resources outside the Wilderness. Evaluation of need for control will be according to FSM 2324.12, Evaluation of Epidemics.*
2. *Search and rescue operations will be conducted, so far as is possible, in a manner consistent with Wilderness values (e.g., "flaglines" from searches will be removed after the operation is completed); use of motorized equipment for emergency situations is addressed in FSM 2326.*
3. *Wilderness presently designated as Class II airsheds under the Federal Clean Air Act shall be managed as such.*
4. *Develop fire management plans for each Wilderness to provide for the natural role of fire in Wilderness. Prescribed fire, including planned ignitions as prescribed in an approved fire management plan, can have a role in wilderness management. An appropriate response to wildfire will be made in accordance with the Rogue River National Forest Fire Management Policy.*

## MANAGEMENT STRATEGY 14

### BIG GAME WINTER RANGE

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#### GOAL

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To provide forage and hiding/thermal cover for deer and elk during the winter season.

#### DESCRIPTION

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This strategy can be applied only to those acres designated as important for big game winter range management. Winter range varies annually depending on weather and site conditions but generally lies below 4,000 feet in elevation. The areas used by big game during the winter season, considered to be between November 1 and May 1, at elevations less than 3000 feet, and several additional areas of concentrated winter use above 3,000 feet, will be considered winter range essential for maintaining desired population levels.

Managed hiding cover are areas of at least 600 feet in diameter that can hide 90 percent of the animal, 200 feet from the edge. Optimal thermal cover for big game consists of stands of evergreen trees with:

Relatively large diameter of dominant trees in the stand.

Multi-layered canopy of trees with a moderate-to-high canopy closure in the overstory, midstory and understory layers (greater than 70 percent of the canopy over 40 feet in height).

From 30 to 60 acres in size although smaller sized units are acceptable if larger areas are unavailable.

Thermal cover consists of stands of coniferous trees over 40 feet tall with greater than 70 percent crown closure that do not meet the above. Optimum stand sizes are the same as for optimum thermal cover.

Herbaceous vegetation provides the forage base with a variety of foraging species available. Provide high quality forage on at least 20 percent of the area.

When conflicts exist between big game winter range management and other resources, the conflict will be resolved in favor of winter range management, subject to rights under law and regulation.

This area does not include class I, II and III streams, or their associated riparian zones.

#### STANDARDS AND GUIDELINES

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##### RECREATION - ROADED MODIFIED

1. ***Manage the area for Modification Visual Quality Objective. Blend and shape regeneration openings with the natural terrain to the extent possible. Assess the impacts to visual resources in all project environmental analysis. Specifically address how the visual quality objective will be met.***
2. ***Allow for dispersed recreation activities such as hunting, fishing and the gathering of forest products.***
3. ***Manage trails, motorized and non-motorized recreation use, dispersed occupancy sites and activities to minimize conflict with wildlife management activities and winter range values.***
4. ***Allow off-road vehicle use only on designated roads and trails when it will not conflict with big game winter range values.***
5. Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.
6. ***Control vehicle access in big game winter range as needed between November 1 and April 30 to prevent biological stress.***
7. Rehabilitate deteriorated recreation use areas.

8. Protect Special Dispersed Features, including trails, from adverse impacts until management of the special dispersed features is addressed in an environmental analysis. The environmental analysis shall propose alternative management practices and mitigation measures where appropriate.
9. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.
10. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
11. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
12. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
13. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
14. Evaluate and enhance cultural resources for scientific, educational, recreational and eth-

nic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.

15. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
16. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

## WILDERNESS

1. This element is not applicable under a big game winter range management strategy.
2. Project plans will assure that Wilderness boundaries are not violated.

## WILDLIFE, FISH AND PLANTS

1. ***Manage big game winter range habitat to provide a minimum of 50 percent thermal cover on each 500 to 1000 acres analysis area. At least two-thirds of the thermal cover (30 percent of the analysis area) should meet optimal thermal cover requirements.***
2. ***Provide a minimum of 20 percent of each analysis area as forage area by maintaining or improving forage conditions with emphasis on increasing the variety and quality of plants available for forage and a mixture of age classes of shrubs.***
3. ***Where foraging areas are created, the units will be irregular in shape and designed so that any point in the unit is no more than 600 feet from cover. Hiding/thermal cover will be maintained immediately adjacent to the foraging site. If more than one unit is treated in a single year, the units should be at least 600 feet apart. As an opening is reestablished with trees and qualifies as cover, adjacent areas can be harvested to maintain forage producing areas.***

4. **Forage improvement activities will be coordinated with State Fish and Game Departments.**
5. **Because winter range habitat is used year round by elk and deer, a restricted operating period from April 1 to June 30 may be imposed in identified fawning or calving areas.**
6. **Allow wildlife habitat improvement projects.**
7. Existing and Proposed Endangered, Threatened and Sensitive Species

Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted

to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

8. Management practices for some selected species are as follows:
  - (a) Northern Spotted Owl - Manage this species under the standards and guidelines established in the ROD for the Supplement to the Environmental Impact Statement for an amendment to the Pacific Northwest Regional Guide. In the event that a pair of northern spotted owls are found in an area, consideration will be given to (1) the need to improve the distribution of older forest ecosystems for all associated plant and animal species; (2) providing insight into management of spotted owl habitat areas (SOHA) through experimental habitat manipulation. During the planning and scheduling phase of any project activity that may impact spotted owl habitat, conduct a biological evaluation in order to deter-

mine the degree of impact and to provide for protective measures.

- (b) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.

- (c) Goshawk - Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (d) Woodpeckers - (Cavity Nesters) Leave sufficient wildlife trees (hard snags or green trees designated to become snags) in coniferous forest lands to provide for at least 60 percent of the potential population levels for cavity nesting species. The distribution of numbers and size class necessary to meet 60 percent per 100 acres is as follows:

#### Siskiyou and Cascade Mixed Conifer

<u>Size</u>	<u>Number</u>
15+	179
17+	36
25+	3
Total	218

#### Siskiyou and Cascade True Fir

<u>Size</u>	<u>Number</u>
15+	143
17+	11
25+	3
Total	157

Species distribution should be representative of the site's original stand. Trees selected for retention should maximize use of the stand's cull component. If the proper number and size of trees do not exist in the stand to be treated, select the proper number from the next lower size class. (i.e. if 25" trees are not available go to 17" trees). Material that satisfies the need for down woody material recruitment will come from existing down material, down woody material that is the result of a silvicultural treatment and from the trees that are designated to meet standing wildlife tree requirements. The long-term goal for large woody material (LWM) is 10 to 20 pieces of class I and II logs per acre, and all existing class III, IV and V logs, except for incidental amounts removed during management activities. Additional green merchantable trees will not be designated unless none of the other categories exist. The expected life span of snags or dead trees in mixed conifer working groups is 30 years and in true fir working groups the life span is 20 years. The silvicultural prescription will describe the total number, size and species of wildlife trees that will be required through the next full rotation of the stand being treated. Wildlife and down woody material requirement will be included as part of the vegetative (silvicultural) prescription for each stand. Information for the

- prescription will be provided by a wildlife biologist based on site by site needs. A certified silviculturist will validate the data and include it in the preparation of the final vegetative (silvicultural) prescription that implements all the interdisciplinary requirements. The logging system required, reforestation needs, slash disposal requirements and site preparation needs should be compatible with the wildlife tree distribution needs. Primary cavity excavator habitat will be met on areas no larger than 60 acres including adjacent existing harvest units. The objective is to provide well distributed habitat, and to allow adjacent stands to provide the needed wildlife trees for past harvest units where current standards were not met. Where past harvest units were very large, the adjacent stands within 900 feet will be managed at higher wildlife tree levels to bring the overall area to at least the 40 percent level. When the past harvest units were of such magnitude that the above methods cannot bring the entire area to the 40 percent level, the remaining shortage will not be provided for, but will be tracked for the purpose of monitoring the forest plan. Selection of wildlife trees to make up for past deficits will meet the same selection criteria as in newly treated stands. Green merchantable trees will not be girdled to create wildlife snags, regardless of the situation, until (5-7) years after project completion (sale closure), in order to capture any mortality that may occur during that time. Operational accomplishment will be included as a monitoring item in the forest plan.
- (e) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.
- Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.
- (f) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral en-



try; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

## RANGE

1. ***Permit livestock grazing as long as sufficient forage is left for wildlife during the winter season.***
2. Provide annual permittee plans for livestock distribution and use patterns. Where conflicts cannot be resolved or mitigated, relocation or removal of livestock will be considered.
3. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
4. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.
5. ***Design range improvements complimentary to elk winter range management.***
6. ***Allow increases in permitted grazing use to capture increases in transitory range caused by timber cutting compatible with winter range management objectives.***
7. Prescribe kind and amount of grass and browse seeding in silviculture prescriptions.
8. ***Permit grazing on disturbed sites and/or areas under timber management which can be seeded with species to improve forage production and does not restrict tree establishment and growth. (FSM 2521.02, RR Supplement #6, 2/73).***
9. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utilization standards which are lower or rarely higher when associated with intensive grazing systems and specific vegetation management objectives which will meet resource management objectives and the intent of the management strategy. The standards include cumulative annual use by big game and livestock. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or twig length (e.g. utilization is 50 percent if 50 out of 100 leaders are browsed). Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory condition is anything not meeting satisfactory conditions. Allowable use of available forage (Maximum percent of annual utilization by big game and livestock) is:

## RANGE MANAGEMENT INTENSITY

	Minimum 1/	Extensive 2/	Intensive 3/
<b>Forested Areas</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Grasslands</b>			
-Satisfactory Condition	50%	55%	60%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Shrublands</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-25%	0-30%	0-35%

1/ Minimum - Minimum amount of improvements; simple grazing system.

2/ Extensive - Most or all improvements are non-structural; rotation grazing systems used.

3/ Wide variety of structural and non-structural improvements; rotation grazing systems used.

## TIMBER

1. Timber harvest will be scheduled.
2. When trees are cut for timber production objectives, the cutting shall be made in a way to assure that technology and knowledge exist to adequately restock the site within five years after final harvest (36 CFR 219.27(c)(3)).
3. Timber harvesting shall only occur on lands classified as suitable for timber production except for salvage sales, sales necessary to protect other multiple-use values or activities that meet other objectives if the Forest Plan establishes that such actions are appropriate (36 CFR 219.27(c)(1)).
4. The landscape on suitable timber lands will basically consist of a mosaic of even-aged managed stands to be achieved through the following practices:
  - (a) Site preparation - chemical, mechanical, biological, manual and prescribed fire.
  - (b) Tree improvement (genetics) by using tree seed extracted from cones picked from selected trees.
  - (c) Reforestation by planting or seeding. Random natural seedlings will count towards reaching desired stocking.
- (d) Growing stock protection from animals, insects and diseases.
- (e) Release and weeding - chemical, mechanical, biological, manual and prescribed fire.
- (f) Precommercial thinning in stands less than 10 feet in height.
- (g) Commercial thinning.
- (h) Salvage mortality as necessary.
- (i) Fertilization.
- (j) Final Harvest - even-aged silvicultural system using shelterwood, seed tree or clearcut methods. The shelterwood method will probably be the most common; however, selection will be determined by the environmental analysis process and documented in site-specific silvicultural prescriptions. The landscape on lands not suitable for timber management will appear as natural openings, meadows and forested environment.
- \* (x) *Pruning*
5. Opening size and stocking levels need to be restricted on the sensitive land types shown in the following table:

[illegible]

- (a) Logging unit size for regeneration and vegetation management for site conversion treatments, normally will not exceed 15 acres and no more than 30 percent of the sensitive area will be treated. Openings and percent of area treated will be distributed relative to the stability characteristics of the landscape. Adjacent stands in sensitive sites can be reentered when (1) minimum stocking for the site reaches 12 feet in height, or (2) 70 percent of ground is covered with trees and brush 12 feet in height. Deviations will be supported with a fully documented environmental analysis. Precommercial stand maintenance and precommercial thinning is not subject to the limitations shown in (1) and (2) above.
  - (b) For commercial intermediate treatments, stocking may be reduced to minimum stocking level for the site or 50 percent of existing level, whichever is greater. Deviations will be supported with a fully documented environmental analysis.
6. Opening size limitations for other land types not shown above are as follows:
- (a) Where stand conditions permit, the size of created openings will be between 30 and 60 acres.

- (b) Limit created openings with tree sizes of less than 4.5 feet tall to a maximum of 17 percent of the area. Exceptions are permitted when natural catastrophic situations such as fires, windstorms, or insect and disease attacks occur.
  - (c) A harvested area of commercial forest will no longer be considered a created opening for silvicultural purposes when stocking surveys carried out in accordance with Regional instructions indicate prescribed crop tree stocking at or above 4.5 feet in height and free to grow.
7. Rehabilitate and reconstruct developments and resources that have been impacted by timber sale activities.
  8. Reforestation, precommercial thinning and release to meet recommended stocking will be addressed with site-specific silvicultural prescriptions.
  9. The logging system design for timber sales will be reviewed by logging systems specialists designated by the Forest Supervisor. Review for feasibility, silvicultural compatibility and economics.
  10. The even-aged silvicultural system will be the most commonly used system in coniferous forests. The uneven-aged silvicultural system may be used when healthy, fully stocked, uneven-aged stands exist or can be created by identified treatments within a defined time period. The selection of the appropriate silvicultural system will be guided by the following criteria:
    - (a) Must permit the production of sufficient volume of marketable trees to permit utilization of all trees which meet utilization standards and are designated for harvest.
    - (b) Must permit the use of an available and acceptable logging method.
    - (c) Must be capable of providing special conditions when required by critical soil conditions or needed to achieve management objectives.
    - (d) Must permit control of existing or potential vegetation to a degree that establishment of numbers of trees and rates of growth as identified in site-specific silvicultural prescriptions for harvest areas can be achieved.
    - (e) Must promote stand structure and species composition which avoids serious risk of damage from mammals, insects, disease or wildfire and will allow treatment of existing insect, disease or fuel conditions.
    - (f) Must meet resource and vegetation management objectives.
  11. Set harvest treatment priorities by cut categories on each District so that the stands most needing treatment are done first, whenever reasonably possible.
  12. ***Coordinate chemical and fertilizer use with the Oregon Department of Fish and Wildlife and California Department of Fish and Game.***
  13. ***Design and schedule timber sales to accomplish forage and thermal cover ratio specified under WILDLIFE, FISH AND PLANTS of this management strategy.***
  14. ***Create forage units that are irregular in shape and design so that any point is no more than 600 feet from cover. Maintain hiding cover immediately adjacent to the forage site.***
  15. ***Slash shall be managed to facilitate big game movement and forage production.***
  16. ***Firewood gathering will be coordinated with winter road closures and season restrictions will apply during the winter and spring. Firewood gathering will be allowed in conjunction with timber management activities or in designated fuelwood gathering areas.***

17. Maintain a blend of tree species approximating natural stands. In seed collections, no seed lot shall be represented by fewer than 15 families of trees of that species, well distributed across the breeding zone. In addition, no family of parent trees shall represent greater than 20 percent of a seed lot. Although any given plantation may be planted to a single species, strive for a natural seed source from a variety of species.
18. Fuelwood and other miscellaneous forest products are available during stand development as follows:
  - (a) Make miscellaneous forest products such as poles, posts, boughs, Christmas trees, house-logs, etc., available on an as-needed basis consistent with the resource objectives of this management area.
  - (b) Provide access to potential fuelwood when appropriate. Bring fuelwood to convenient points in timber sale or thinning areas. Utilize appropriate timber sale clauses or modify fuels management prescriptions to meet this objective.
  - (c) Allow commercial fuelwood contracts for slash disposal, thinning and site preparation.
  - (d) Open slash areas to fuelwood gathering prior to traditional disposal methods.
  - (e) Leave slash as a fuelwood source where there is no conflict with resource activity.
  - (f) Consider using the fuelwood program as a means to meet silvicultural objectives in appropriate areas, such as low productivity stands or other stands prior to reaching commercial size.
  - (g) Consider the season of year and access when implementing a fuelwood program. The public will be encouraged to burn dry wood.
  - (h) Document fuelwood availability for public uses in project environmental analysis.
  - (i) Be responsive to the needs of the public for fuelwood.
  - (j) Create a Forest fuelwood and miscellaneous products policy to include fuelwood inventory.
19. Utilization standards for timber harvested will meet the standards as stated in the Pacific Northwest Regional Guide, Standards and Guidelines 4-2 and in Table 3-6. Standards in timber sale contracts may vary depending on markets and costs of harvesting.

## UTILIZATION STANDARDS

Type Tree	Minimum dbh.	Minimum Top dib.
First Decade Existing mature trees, except lodgepole pine (first and future decades)	9	6
Existing commercial thinning size trees and lodgepole pine	7	4
Future Decades All species, except surviving stands of first decade existing mature.	7	4

## WATER

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.
2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.
- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.
- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.
- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between (1) the Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and

Grazing Activities on Federal lands) and 2) the State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.

3. The following requirements will be employed in project implementation when proposed projects may affect streams:
  - (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;
  - (b) Consider relation of project to riparian areas (all streams classed as I, II and III are allocated to Strategy 26);
  - (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
  - (d) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.
4. Acquire water rights for development of non-reserved uses.
5. Design project water monitoring as appropriate.
6. Allow for watershed restoration projects.
7. In-stream flows on National Forest lands should be protected through critical analysis of proposed water uses, diversion and transmission applications, and renewal of permits.
8. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.
9. **Comply with the specific direction for management of each of the municipal water-**

**sheds as specified in management agreements between the U.S. Department of Agriculture or Forest and municipalities.**

## MINERALS

1. Develop and manage new and existing aggregate sources in compliance with approved Rock Resource Development Plan and an approved environmental analysis.
2. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
3. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
4. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.
5. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

## HUMAN AND COMMUNITY DEVELOPMENT

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.

3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

## LANDS

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.
3. Direct applications for electronic sites toward use of sites in the following order:
  - (a) Utilizing residual capacity of existing sites.
  - (b) Developing new sites identified in the Forest-wide Electronic Site Plan.
4. Insure that proposed projects do not have adverse effect on lands included in active exchanges.
5. Develop rights-of-ways as necessary to implement projects.
6. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.

7. Establish and maintain property boundaries on lands administered by the Forest Service.

## SOILS

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. No more than 10 percent of an activity area should be compacted, puddled or displaced upon completion of project (not including permanent roads or landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices, including roads and landings. Permanent recreation facilities or other permanent facilities are exempt.
4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.
5. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory:
  - (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils.
  - (b) Thirty percent exposure on high or severe erosion hazard soils.
  - (c) Fifteen percent exposure on very high or very severe erosion hazard soils.



6. Rehabilitate adversely impacted sites.

## FACILITIES

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:
  - (a) Road and Trail Design Elements,
  - (b) Road and Trail Design Standards,
  - (c) Road Maintenance Levels,
  - (d) Road and Trail Maintenance Plans,
  - (e) Road Traffic Management Strategies,
  - (f) Road Restriction Orders and Traffic Control Devices,
  - (g) Off-Road Vehicle Management Strategies,
  - (h) Travel Maps and
  - (i) Closure Orders.
2. Between the end of the big game hunting seasons (approximately November 1 and April 30), the following Road Traffic Management Strategies will be utilized to limit the number of roads open to vehicle traffic to approximately 1-1/2 miles per square mile of land:
  - (a) Encourage or accept use of arterial and collector roads.
  - (b) Accept use of local roads necessary for operating active timber sales or for current year spring access for site preparation and reforestation activities.
  - (c) Discourage, eliminate or prohibit all other use of local roads.

- (d) Allow off-road vehicle use only on designated roads and trails when it will not conflict with winter range values.

3. Within sensitive soil resource inventory land types as shown in Management Strategy 21, the following guidelines apply:
  - (a) Geotechnical input is required for road location, design, and management.
  - (b) Temporary roads will be planned, surveyed, designed, constructed and operated utilizing the same procedures for reviewing decisions, selecting design elements and standards, and controlling construction, operation and maintenance as are used for permanent transportation system roads.
  - (c) Roads which access or traverse these land types may be closed seasonally to prevent resource damage.
4. Temporary roads that have been evaluated through the NEPA process are permitted.
5. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service. Vegetation shall be reestablished within one year.

## PROTECTION

1. Plan pest control alternatives to be biologically selective, cost beneficial and to have no irreversible adverse effect on the environment.
2. **Aggressively** suppress insects and diseases using the most cost-effective suppression strategies when outbreaks threaten resource management objectives. Includes stump treatment for root rots, application of pesticides for defoliators and cone insects, etc., as necessary.
3. **Practice high intensity prevention activities such as monitoring pest populations to be forewarned of outbreaks, stump removal for root rots, stocking control, species se-**

- lection for plantings, timely salvage of weather damaged timber, etc.*
4. *Provide a moderate level of fire prevention activities consisting of: public contact through the use of media and personal contact at campgrounds and dispersed recreation areas; and fire prevention signing at campgrounds, rest areas, main road junctions, information centers and local businesses.*
  5. *Maintain natural fuel loadings at a level which meets protection standards and resource objectives in a cost-efficient manner.*
  6. *Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.*
  7. *Hazard reduction activities will be compatible with management area objectives.*
  8. *Design fuel breaks to meet the natural characteristics of the area.*
  9. *Integrate fuel break construction with vegetation management projects.*
  10. *Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.*
  11. *Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.*

## MANAGEMENT STRATEGY 15

### OLD GROWTH

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#### GOAL

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Provide old-growth tree stands for preservation of natural genetic pools, habitat for plants and wildlife species associated with overmature tree stands, including threatened and endangered species associated with old-growth habitat, and aesthetics.

#### DESCRIPTION

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This strategy can be applied only to those acres designated as suitable or potentially suitable for old-growth management. An old-growth stand is defined as any stand of trees 10 acres or greater generally containing the following characteristics:

Stands contain mature and overmature trees in the overstory and are well into the mature stage.

Stands will usually contain a multi-layered canopy and trees of several age classes averaging greater than 200 years of age.

Standing dead trees and down material are present.

Evidence of man's activities may be present but do not significantly alter the other characteristics and would be a subordinate factor in a description of such a stand.

Old-growth plant communities have unique environmental conditions that are ecologically important as niches for wildlife species. The niches are a product of the plant community, its successional stages and other environmental factors including soil type, moisture regime, micro-climate, slope, aspect, elevation and temperature.

Included in this strategy are areas set aside for the indicator species of the pileated woodpecker and the pine marten. A critical factor in providing wildlife habitat is the size of the area containing the suitable habitat. The area must be large enough to support

the indicator species depending on the location. Minimum habitat areas have been set at 160 acres for the pine marten and 300 acres for the pileated woodpecker.

When conflicts exist between old-growth and other resources, the conflict will be resolved in favor of the old-growth, subject to rights under law and regulation.

This area includes class I, II and III streams, and their associated riparian zones.

#### STANDARDS AND GUIDELINES

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##### RECREATION - SEMI-PRIMITIVE MOTORIZED/ ROADED NATURAL

1. ***Manage the area for Retention Visual Quality Objective.***
2. ***Allow for dispersed recreation activities such as hunting, observing wildlife and the gathering of forest products.***
3. Rehabilitate deteriorated recreation use areas.
4. ***Manage trails and dispersed occupancy sites in a manner not in conflict with old-growth resource values.***
5. ***Discourage or prohibit recreation use where public safety is threatened.***
6. Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.
7. ***Off-road vehicle recreation use allowed only on designated roads and trails.***
8. ***Rehabilitate areas damaged by recreation activities.***

9. Protect Special Dispersed Features from adverse impacts until management of the special dispersed feature is addressed in an environmental analysis. The environmental analysis shall propose alternative management practices and mitigation measures where appropriate.
10. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.
11. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
12. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
13. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
14. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
15. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
16. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
17. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

#### WILDERNESS

1. This element is not applicable under an old-growth management strategy.
2. Project plans will assure that Wilderness boundaries are not violated.

#### WILDLIFE, FISH AND PLANTS

1. Permit wildlife and fish projects that take advantage of the unique characteristics of old-growth.
2. Existing and Proposed Endangered, Threatened and Sensitive Species

Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the

possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

3. Management practices for some selected species are as follows:

- (a) Pine Marten - Maintain at all times at least 160 contiguous acres of conifers in seral stage V or VI.

- (b) Pileated Woodpecker - When possible, maintain 300 contiguous acres of conifers in seral stage V or VI. If not possible, habitat may be arranged in blocks of no less than 50 acres and no more than one quarter mile apart.

- (c) Northern Spotted Owl - Manage this species under the standards and guidelines established in the ROD for the Supplement to the Environmental Impact Statement for an amendment to the Pacific Northwest Regional Guide. In the event that a pair of northern spotted owls are found in an area, consideration will be given to (1) the need to improve the distribution of older forest ecosystems for all associated plant and animal species; (2) providing insight into management of spotted owl habitat areas (SOHA) through experimental habitat manipulation. During the planning and scheduling phase of any project activity that may impact spotted owl habitat, conduct a biological evaluation in order to determine the degree of impact and to provide for protective measures.

- (d) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.

- (e) Goshawk - Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will

be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (f) Woodpeckers - (Cavity Nestors)  
Leave sufficient wildlife trees (hard snags or green trees designated to become snags) in coniferous forest lands to provide for 100 percent of the potential population levels for cavity nesting species. The distribution of numbers and size class necessary to meet 100% per 100 acres is as follows:

Siskiyou and Cascade Mixed Conifer

<u>Size</u>	<u>Number</u>
15+	298
17+	60
25+	5
Total	363

Siskiyou and Cascade True Fir

<u>Size</u>	<u>Number</u>
15+	238
17+	18
25+	5
Total	157

Species distribution should be representative of the site's original stand. Trees selected for retention should maximize use of the stand's cull component. If the proper number and size of trees do not exist in the stand to be treated, select the proper number from the next lower size class (i.e. if 25" trees are not available go to 17" trees). Material that satisfies the need for down woody material recruitment will come from existing down material, down woody material that is the result of a silvicultural treatment and from the trees that are designated to meet

standing wildlife tree requirements. The long-term goal for large woody material (LWM) is 10 to 20 pieces of class I and II logs per acre, and all existing class III, IV and V logs, except for incidental amounts removed during management activities. Additional green merchantable trees will not be designated unless none of the other categories exist. The expected life span of snags or dead trees in mixed conifer working groups is 30 years and in true fir working groups the life span is 20 years. The silvicultural prescription will describe the total number, size and species of wildlife trees that will be required through the next full rotation of the stand being treated. Wildlife and down woody material requirement will be included as part of the vegetative (silvicultural) prescription for each stand. Information for the prescription will be provided by a wildlife biologist based on site by site needs. A certified silviculturist will validate the data and include it in the preparation of the final vegetative (silvicultural) prescription that implements all the interdisciplinary requirements. The logging system required, reforestation needs, slash disposal requirements and site preparation needs should be compatible with the wildlife tree distribution needs. Primary cavity excavator habitat will be met on areas no larger than 60 acres including adjacent existing harvest units. The objective is to provide well distributed habitat, and to allow adjacent stands to provide the needed wildlife trees for past harvest units where current standards were not met. Where past harvest units were very large, the adjacent stands within 900 feet will be managed at higher wildlife tree levels to bring the overall area to at least the 40 percent level. When the past harvest units were of such magnitude that the above methods cannot bring the entire area to 40 percent level, the remaining shortage will not be provided for, but will be tracked for the purpose of monitoring

the forest plan. Selection of wildlife trees to make up for past deficits will meet the same selection criteria as in newly treated stands. Green merchantable trees will not be girdled to create wildlife snags, regardless of the situation, until (5-7) years after project completion (sale closure), in order to capture any mortality that may occur during that time. Operational accomplishment will be included as a monitoring item in the forest plan.

- (g) Deer and Elk - Maintain summer range to provide forage, hiding and thermal cover. A restricted operating period from April 1 to June 30 may be imposed in identified deer or elk fawning or calving areas.
- (h) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than

500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (i) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

4. ***Evaluate the effects of proposed projects on wildlife habitat in all environmental analysis. Discuss pertinent components of the habitat such as edge, migration routes, vegetation diversity and microclimate. Specify mitigation measures when the area is disturbed.***

## RANGE

1. ***Livestock grazing is permitted at levels which maintain the desired old-growth characteristics and species composition of the understory. Forage utilization will be limited to that not needed to maintain indigenous plant species. Exotic plants cannot be introduced.***
2. ***Salt blocks or water developments are allowed if livestock use does not change the plant composition.***
3. Provide annual permittee plans for livestock distribution and use patterns. Where conflicts cannot be resolved or mitigated, relocation or removal of livestock will be considered.
4. Write range allotment plans to reflect management direction for all lands within the al-

lotment boundary. Allotment planning procedures are documented in FSM 2210.

5. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.
6. Allow range improvements.
7. Allow increases in permitted grazing use to capture increases in transitory range caused by timber cutting where this is compatible with the old-growth management objectives.
8. Prescribe kind and amount of grass seeding in silviculture prescriptions.
9. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utilization standards which are lower or rarely higher when associated with intensive grazing systems and specific vegetation management objectives which will meet resource management objectives and the intent of the management strategy. The standards include cumulative annual use by big game and livestock. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or twig length (e.g. utilization is 50 percent if 50 out of 100 leaders are browsed). Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory condition is anything not meeting satisfactory conditions. Allowable use of available forage (Maximum percent of annual utilization by big game and livestock) is:



## RANGE MANAGEMENT INTENSITY

	Minimum 1/	Extensive 2/	Intensive 3/
<b>Forested Areas</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Grasslands</b>			
-Satisfactory Condition	50%	55%	60%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Shrublands</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-25%	0-30%	0-35%

- 1/ Minimum - Minimum amount of improvements; simple grazing system.  
 2/ Extensive - Most or all improvements are non-structural; rotation grazing systems used.  
 3/ Wide variety of structural and non-structural improvements; rotation grazing systems used.

## TIMBER

1. *There will not be any scheduled volume from these areas.*
2. *Timber harvest can only take place if it benefits the old growth habitat. The exception will be that timber harvest will be allowed in catastrophic situations such as salvage of fire or insect damage or to meet the management area objectives. Salvage operations will require a project environmental analysis and be designed to minimize impact on resources. Restoration of such an area will be designed to return it to a natural state.*
3. *In the event of a need for access for salvaging timber from catastrophes, non-ground based systems, such as helicopter, are preferred.*
4. Firewood gathering and cutting compatible with objectives of the area will be permitted.
5. Rehabilitate and reconstruct developments and resources that have been impacted by timber sale activities.
6. All silvicultural prescriptions will be approved by a certified silviculturist and reviewed by the District Ranger.

7. The logging system design for timber sales will be reviewed by logging systems specialists designated by the Forest Supervisor. Review for feasibility, silvicultural compatibility and economics.
8. Maintain a blend of tree species approximating natural stands. In seed collections, no seed lot shall be represented by fewer than 15 families of trees of that species, well distributed across the breeding zone. In addition, no family of parent trees shall represent greater than 20 percent of a seed lot. Although any given plantation may be planted to a single species, strive for a natural seed source from a variety of species.
9. Utilization standards for timber harvested will meet the standards as stated in the Pacific Northwest Regional Guide, Standards and Guidelines 4-2 and in Table 3-6. Standards in timber sale contracts may vary depending on markets and costs of harvesting.

## WATER

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.

2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.
- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.
- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.
- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in

Memorandums of Understanding between 1) the Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal lands) and 2) the State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.

3. The following requirements will be employed in project implementation when proposed projects may affect streams:
  - (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;
  - (b) Consider relation of project to riparian areas (all streams classed as I, II and III are allocated to Strategy 26);
  - (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
  - (d) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.
4. Acquire water rights for development of non-reserved uses.
5. Design project water monitoring as appropriate.
6. Allow for watershed restoration projects.
7. In-stream flows on National Forest lands should be protected through critical analysis

of proposed water uses, diversion and transmission applications, and renewal of permits.

8. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.

## MINERALS

1. **Prohibit development of aggregate rock sources.**
2. **Prohibit expansion of existing aggregate sources.**
3. **Rehabilitate aggregate sources as they are closed.**
4. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
5. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
6. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.
7. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

## HUMAN AND COMMUNITY DEVELOPMENT

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.
3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

## LANDS

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.
3. Direct applications for electronic sites toward use of sites in the following order:
  - (a) Utilizing residual capacity of existing sites.
  - (b) Developing new sites identified in the Forest-wide Electronic Site Plan.

4. Insure that proposed projects do not have adverse effect on lands included in active exchanges.
5. Develop rights-of-ways as necessary to implement projects.
6. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.
7. Establish and maintain property boundaries on lands administered by the Forest Service.

- (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils.
- (b) Thirty percent exposure on high or severe erosion hazard soils.
- (c) Fifteen percent exposure on very high or very severe erosion hazard soils.

6. Rehabilitate adversely impacted sites.

## FACILITIES

## SOILS

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. No more than 10 percent of an activity area should be compacted, puddled or displaced upon completion of project (not including permanent roads or landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices, including roads and landings. Permanent recreation facilities or other permanent facilities are exempt.
4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.
5. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory:

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:
  - (a) Road and Trail Design Elements,
  - (b) Road and Trail Design Standards,
  - (c) Road Maintenance Levels,
  - (d) Road and Trail Maintenance Plans,
  - (e) Road Traffic Management Strategies,
  - (f) Road Restriction Orders and Traffic Control Devices,
  - (g) Off-Road Vehicle Management Strategies,
  - (h) Travel Maps and
  - (i) Closure Orders.
2. Within sensitive soil resource inventory land types as shown in Management Strategy 21, the following guidelines apply:
  - (a) Geotechnical input is required for road location, design, and management.
  - (b) Temporary roads will be planned, located, surveyed, designed, constructed, and operated utilizing the same procedures for reviewing, decisions,

selecting design elements and standards, and controlling construction, operation, and maintenance as are used for permanent transportation system roads.

- (c) Roads which access or traverse these land types may be closed seasonally to prevent resource damage.
- 3. Temporary roads that have been evaluated through the NEPA process are permitted.
- 4. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service. Vegetation shall be reestablished within one year.

#### PROTECTION

- 1. Plan pest control alternatives to be biologically selective, cost beneficial and to have no irreversible adverse effect on the environment.
- 2. ***Provide a low level of prevention activities limited primarily to public contact through***

***patrol and fire prevention signing at campgrounds, rest areas, main access road junctions and information centers.***

- 3. Use prescription fire to obtain desired ecological characteristics of the area.
- 4. Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.
- 5. Hazard reduction activities will be compatible with management area objectives.
- 6. Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.
- 7. Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.

## MANAGEMENT STRATEGY 16

### MATURE HABITAT

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#### GOAL

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Provide mature tree stands for preservation of natural habitat for plant and wildlife species associated with mature and overmature tree stands, including threatened and endangered species.

#### DESCRIPTION

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This strategy can be applied only to those acres designated as suitable for mature habitat management. A mature stand is defined as any stand of trees generally containing the following characteristics:

Will generally be greater than 30 acres and contain a layer of mature and/or overmature trees generally larger than 20 inches DBH, an understory layer of suppressed and young trees, and other tree layers as well as an herb and shrub layer.

The tree layers will have a minimum 50 percent crown closure and will contain a variety of tree species similar to the composition of a natural stand at that site.

Will be managed to provide 60 percent of their biological potential for cavity dependent species (snag habitat).

Potential replacement stands may be managed at lower snag habitat levels (40 percent minimum), providing they have achieved the 100 percent level at the time they are used to replace existing mature stands.

Contain a minimum average of 6 down logs (class II or III) greater than 12 inches diameter and 20 feet long per acre.

Mature plant communities have environmental conditions that are ecologically important as niches for wildlife species. The niches are a product of the

plant community, its successional stages and other environmental factors - including soil type, moisture regime, microclimate, slope, aspect, elevation and temperature.

Habitat units - To meet the goal of providing adequate mature habitat in the form of managed stands, this Management Strategy is always allocated in contiguous blocks of at least 560 acres. Timber harvest may occur within these habitat units on an average rotation age of 140 years, while maintaining at least 28 percent of the acreage in a mature condition in as contiguous a manner as possible.

When conflicts exist between mature habitat and other resources, the conflict will be resolved in favor of the mature habitat, subject to rights under law and regulation.

This area does not include class I, II and III, streams and their associated riparian zones.

#### STANDARDS AND GUIDELINES

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##### RECREATION - ROADED MODIFIED

1. ***Manage the area for Modification Visual Quality Objective. Blend and shape regeneration openings with the natural terrain to the extent possible. Assess the impacts to visual resources in all project environmental analysis. Specifically address how the visual quality objective will be met.***
2. ***Allow for dispersed recreation activities such as hunting, fishing and the gathering of forest products.***
3. ***Manage trails, dispersed occupancy sites and activities in a manner not in conflict with wildlife management activities.***
4. Rehabilitate deteriorated recreation use areas.

5. Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.
6. Protect Special Dispersed Features, including trails, from adverse impacts until management of the special dispersed features is addressed in an environmental analysis. The environmental analysis shall propose alternative management practices and mitigation measures where appropriate.
7. **Off-road vehicle recreation use allowed only on designated roads and trails.**
8. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.
9. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
10. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
11. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the property.
12. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include main-

tenance of structures, avoidance of the site, or scientific removal, analysis and reporting.

13. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
14. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
15. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

#### WILDERNESS

1. This element is not applicable under mature habitat strategy.
2. Project plans will assure that Wilderness boundaries are not violated.

#### WILDLIFE, FISH AND PLANTS

1. Permit wildlife and fish projects that take advantage of the unique characteristics of mature habitat.
2. Existing and Proposed Endangered, Threatened and Sensitive Species

Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for exist-

ing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

3. Management practices for some selected species are as follows:

- (a) Northern Spotted Owl - Manage this species under the standards and guidelines established in the ROD for the Supplement to the Environmental Impact Statement for an amendment to the Pacific Northwest Regional Guide. In the event that a pair of northern spotted owls are found in an area, consideration will be given to (1) the need to improve the distribution of older forest ecosystems for all associated plant and animal species; (2) providing insight into management of spotted owl habitat areas (SOHA) through experimental habitat manipulation. During the planning and scheduling phase of any project activity that may impact spotted owl habitat, conduct a biological evaluation in order to determine the degree of impact and to provide for protective measures.
- (b) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.
- (c) Goshawk - Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and



evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (d) Woodpeckers - (Cavity Nesters)  
Leave sufficient wildlife trees (hard snags or green trees designated to become snags) in coniferous forest lands to provide for 100 percent of the potential population levels for cavity nesting species. The distribution of numbers and size class necessary to meet 60 percent per 100 acres is as follows:

Siskiyou and Cascade Mixed Conifer

<u>Size</u>	<u>Number</u>
15+	179
17+	36
25+	<u>3</u>
Total	218

Siskiyou and Cascade True Fir

<u>Size</u>	<u>Number</u>
15+	143
17+	11
25+	<u>3</u>
Total	157

Species distribution should be representative of the site's original stand. Trees selected for retention should maximize use of the stand's cull component. If the proper number and size of trees do not exist in the stand to be treated, select the proper number from the next lower size class. (i.e. if 25" trees are not available go to 17" trees). Material that satisfies the need for down woody material recruitment will come from existing down material, down woody material that is the result of a silvicultural treatment and from the trees that are designated to meet standing wildlife tree requirements. The long-term goal for large woody material (LWM) is 10 to 20 pieces of

class I and II logs per acre, and all existing class III, IV and V logs, except for incidental amounts removed during management activities. Additional green merchantable trees will not be designated unless none of the other categories exist. The expected life span of snags or dead trees in mixed conifer working groups is 30 years and in true fir working groups the life span is 20 years. The silvicultural prescription will describe the total number, size and species of wildlife trees that will be required through the next full rotation of the stand being treated. Wildlife and down woody material requirement will be included as part of the vegetative (silvicultural) prescription for each stand. Information for the prescription will be provided by a wildlife biologist based on site by site needs. A certified silviculturist will validate the data and include it in the preparation of the final vegetative (silvicultural) prescription that implements all the interdisciplinary requirements. The logging system required, reforestation needs, slash disposal requirements and site preparation needs should be compatible with the wildlife tree distribution needs. Primary cavity excavator habitat will be met on areas no larger than 60 acres including adjacent existing harvest units. The objective is to provide well distributed habitat, and to allow adjacent stands to provide the needed wildlife trees for past harvest units where current standards were not met. Where past harvest units were very large, the adjacent stands within 900 feet will be managed at higher wildlife tree levels to bring the overall area to at least the 40 percent level. When the past harvest units were of such magnitude that the above methods cannot bring the entire area to the 40 percent level, the remaining shortage will not be provided for, but will be tracked for the purpose of monitoring the forest plan. Selection of wildlife trees to make up for past deficits will meet the same selection criteria as in

newly treated stands. Green merchantable trees will not be girdled to create wildlife snags, regardless of the situation, until (5-7) years after project completion (sale closure), in order to capture any mortality that may occur during that time. Operational accomplishment will be included as a monitoring item in the forest plan.

- (e) Deer and Elk - Maintain summer range to provide forage, hiding and thermal cover at or above 20 percent. Timber harvesting and/or thinning should provide hiding and thermal cover between treatment areas and roads with continuous vehicle use. Hiding cover should be dense enough to hide 90 percent of a deer or elk from view at 200 feet. Hiding cover need not be continuous but gaps between screens should not exceed one-quarter of a mile. A restricted operating period from April 1 to June 30 may be imposed in identified deer or elk fawning or calving areas.
- (f) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August

15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (g) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special em-

phasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

4. Evaluate the effects of proposed projects on wildlife habitat in all environmental analysis. Discuss pertinent components of the habitat such as edge, migration routes, vegetation diversity and microclimate. Specify mitigation measures when the area is disturbed.
5. Natural debris, plus trees needed for a future supply, will be maintained and managed to:
  - (a) Maintain or enhance stream channel and bank structure so as to protect water quality.
  - (b) Provide structural fish habitat to meet the objective (smolt habitat capability or resident fish populations) provided for in the Forest Plan.

## RANGE

1. ***Livestock grazing is permitted at levels which maintain the desired mature habitat characteristics and species composition of the understory. Forage utilization will be limited to that not needed to maintain indigenous plant species. Exotic plants cannot be introduced.***
2. ***Salt blocks or water developments are allowed if livestock use does not change the plant composition.***
3. Provide annual permittee plans for livestock distribution and use patterns. Where con-

flicts cannot be resolved or mitigated, relocation or removal of livestock will be considered.

4. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
5. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.
6. Allow range improvements.
7. ***Allow increases in permitted grazing use to capture increases in transitory range caused by timber cutting where this is compatible with the mature habitat management objectives.***
8. Prescribe kind and amount of grass seeding in silviculture prescriptions.
9. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utilization standards which are lower or rarely higher when associated with intensive grazing systems and specific vegetation management objectives which will meet resource management objectives and the intent of the management strategy. The standards include cumulative annual use by big game and livestock. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or twig length (e.g. utilization is 50 percent if 50 out of 100 leaders are browsed). Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory condition is anything not meeting satisfactory conditions. Allowable use of available forage (Maximum percent of annual utilization by big game and livestock) is:

**RANGE MANAGEMENT INTENSITY**

	Minimum 1/	Extensive 2/	Intensive 3/
<b>Forested Areas</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Grasslands</b>			
-Satisfactory Condition	50%	55%	60%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Shrublands</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-25%	0-30%	0-35%

1/ Minimum - Minimum amount of improvements; simple grazing system.

2/ Extensive - Most or all improvements are non-structural; rotation grazing systems used.

3/ Wide variety of structural and non-structural improvements; rotation grazing systems used.

**TIMBER**

1. Timber harvest will be scheduled.

2. When trees are cut for timber production objectives, the cutting shall be made in a way to assure that technology and knowledge exist to adequately restock the site within five years after final harvest (36 CFR 219.27(c)(3)).

3. Timber harvesting shall only occur on lands classified as suitable for timber production except for salvage sales, sales necessary to protect other multiple-use values or activities that meet other objectives if the Forest Plan establishes that such actions are appropriate (36 CFR 219.27(c)(1)).

4. Opening size and stocking levels need to be restricted on the sensitive land types shown in the following table.

[illegible]

- (a) Logging unit size for regeneration and vegetation management for site conversion treatments, normally will not exceed 15 acres and no more than 30 percent of the sensitive area will be treated. Openings and percent of area treated will be distributed relative to the stability characteristics of the landscape. Adjacent stands in sensitive sites can be reentered when (1) minimum stocking for the site reaches 12 ft. in height, or (2) 70 percent of ground is covered with trees and brush 12 ft. in height. Deviations will be supported with a fully documented environmental analysis.
  - (b) For commercial intermediate treatments, stocking may be reduced to minimum stocking level for the site or 50 percent of existing level, whichever is greater. Deviations will be supported with a fully documented environmental analysis.
5. Opening size limitations for other land types not shown above are as follows:
- (a) Forest openings created by the application of even-aged silviculture shall be limited to a maximum size of 60 acres in the Douglas-fir type and to a maximum size of 40 acres on all other lands of the Forest. Exceptions are permitted in the following cases: 1) When natural catastrophic situations such as fires, windstorms, or insect and disease attacks occur; 2) On an individual case basis after 60-day public notice and review by the Regional Forester.
  - (b) When any one of the criteria described below is met and will produce a more

desirable combination of benefits, the limits may be exceeded by not more than 50 percent without review by the Regional Forester or 60-day public notice: **1)** When larger created openings will reduce the disturbance to soil, water, fish or riparian resources, and residual vegetation by: (a) allowing economically feasible logging systems that reduce landing and road construction, or (b) locating roads away from unstable soils, and (c) by reducing soil and vegetation disturbance from dragging logs; **2)** Where groups of dwarf mistletoe or root rot disease infected trees need to be incorporated into the created opening to avoid infection of susceptible conifer reproduction, and their inclusion cannot be achieved by centering the created opening over the area of infection; **3)** Where visual quality objectives require shaping and blending of openings to fit landform; **4)** Where larger units are needed to achieve silviculture objectives in existing areas of regeneration cutting by the shelterwood method and where destruction of the newly-created stand of reproduction would occur as a result of delayed removal of shelter trees. This exception applies only to existing shelterwood units and shelterwood units under contract prior to approval of Forest plan.

- (c) Created openings will be separated by areas generally not classed as created openings. The areas between created openings shall contain one or more logical harvest units. These areas shall be large enough and contain a stand structure to meet resource requirements of the management area. The total area of created openings contiguous to 30 acre or larger natural openings should normally be limited to an area not exceeding one-third the size of the natural opening and not occupying more than one-third of the natural opening perimeter. Openings should not be created adjacent to any natural openings unless adequate vegetation along the edge can be developed or

retained in sufficient density to protect wildlife values and visual management objectives. The determination of adequate vegetation will be made by an appropriate interdisciplinary team.

- (d) A harvested area of commercial forest will no longer be considered a created opening for silvicultural purposes when stocking surveys carried out in accordance with Regional instructions indicate prescribed crop-tree stocking at or above 4.5 feet in height and free to grow.

6. Rehabilitate and reconstruct developments and resources that have been impacted by timber sale activities.

7. ***Manage the area so at least 28 percent of the timber stands in this management strategy, average 20 inches DBH or larger. The following approximate mix of size class types and percent of land area would achieve this standard for mature habitat.***

<u>Size Class</u>	<u>% of Land Area</u>
20" - 27"	28
14" - 20"	28
5" - 14"	28
0" - 5"	16

8. Reforestation, precommercial thinning and release to meet recommended stocking will be addressed with site-specific silvicultural prescriptions.
9. The logging system design for timber sales will be reviewed by logging systems specialists designated by the Forest Supervisor. Review for feasibility, silvicultural compatibility and economics.
10. The even-aged silvicultural system will be the most commonly used system in coniferous forests. The uneven-aged silvicultural system may be used when healthy, fully stocked, uneven-aged stands exist or can be created by identified treatments within a defined time period. The selection of the appropriate silvicultural system will be guided by the following criteria:

- (a) Must permit the production of sufficient volume of marketable trees to permit utilization of all trees which meet utilization standards and are designated for harvest.
  - (b) Must permit the use of an available and acceptable logging method.
  - (c) Must be capable of providing special conditions when required by critical soil conditions or needed to achieve management objectives.
  - (d) Must permit control of existing or potential vegetation to a degree that establishment of numbers of trees and rates of growth as identified in site-specific silvicultural prescriptions for harvest areas can be achieved.
  - (e) Must promote stand structure and species composition which avoids serious risk of damage from mammals, insects, disease or wildfire and will allow treatment of existing insect, disease or fuel conditions.
  - (f) Must meet resource and vegetation management objectives.
11. Set harvest treatment priorities by cut categories on each District so that the stands most needing treatment are done first, wherever reasonably possible.
12. **Coordinate chemical use including fertilizer with the Oregon Department of Fish and Wildlife and California Department of Fish and Game.**
13. Maintain a blend of tree species approximating natural stands. In seed collections, no seed lot shall be represented by fewer than 15 families of trees of that species, well distributed across the breeding zone. In addition, no family of parent trees shall represent greater than 20 percent of a seed lot. Although any given plantation may be planted to a single species, strive for a natural seed source from a variety of species.
14. Fuelwood and other miscellaneous forest products are available during stand development as follows:
- (a) Make miscellaneous forest products such as poles, posts, boughs, Christmas trees, house-logs, etc., available on an as-needed basis consistent with the resource objectives of this management area.
  - (b) Provide access to potential fuelwood when appropriate. Bring fuelwood to convenient points in timber sale or thinning areas. Utilize appropriate timber sale clauses or modify fuels management prescriptions to meet this objective.
  - (c) Allow commercial fuelwood contracts for slash disposal, thinning and site preparation.
  - (d) Open slash areas to fuelwood gathering prior to traditional disposal methods.
  - (e) Leave slash as a fuelwood source where there is no conflict with resource activity.
  - (f) Consider using the fuelwood program as a means to meet silvicultural objectives in appropriate areas, such as low productivity stands or other stands prior to reaching commercial size.
  - (g) Consider the season of year and access when implementing a fuelwood program. The public will be encouraged to burn dry wood.
  - (h) Document fuelwood availability for public uses in project environmental analysis.
  - (i) Be responsive to the needs of the public for fuelwood.
  - (j) Create a Forest fuelwood and miscellaneous products policy to include fuelwood inventory.

15. Utilization standards for timber harvested will meet the standards as stated in the Pacific Northwest Regional Guide, Standards and

Guidelines 4-2 and in Table 3-6. Standards in timber sale contracts may vary depending on markets and costs of harvesting.

#### UTILIZATION STANDARDS

Type Tree	Minimum dbh.	Minimum Top dib.
First Decade Existing mature trees, except lodgepole pine (first and future decades)	9	6
Existing commercial thinning size trees and lodgepole pine	7	4
Future Decades All species, except surviving stands of first decade existing mature.	7	4

#### WATER

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.
2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.

- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.
- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.
- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in



Memorandums of Understanding between 1) the Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal lands) and 2) the State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.

3. The following requirements will be employed in project implementation when proposed projects may affect streams:
  - (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;
  - (b) Consider relation of project to riparian areas (all streams classed as I, II and III are allocated to Strategy 26);
  - (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
  - (d) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.
4. Acquire water rights for development of non-reserved uses.
5. Design project water monitoring as appropriate.
6. Allow for watershed restoration projects.
7. In-stream flows on National Forest lands should be protected through critical analysis

of proposed water uses, diversion and transmission applications, and renewal of permits.

8. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.

## MINERALS

1. Develop and manage new and existing aggregate sources in compliance with approved Rock Resource Development Plan and an approved environmental analysis.
2. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
3. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
4. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.
5. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

## HUMAN AND COMMUNITY DEVELOPMENT

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.

2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.
3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

## LANDS

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.
3. Direct applications for electronic sites toward use of sites in the following order:
  - (a) Utilizing residual capacity of existing sites.
  - (b) Developing new sites identified in the Forest-wide Electronic Site Plan.
4. Insure that proposed projects do not have adverse effect on lands included in active exchanges.
5. Develop rights-of-ways as necessary to implement projects.

6. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.
7. Establish and maintain property boundaries on lands administered by the Forest Service.

## SOILS

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. No more than 10 percent of an activity area should be compacted, puddled or displaced upon completion of project (not including permanent roads or landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices, including roads and landings. Permanent recreation facilities or other permanent facilities are exempt.
4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.
5. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory:
  - (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils.
  - (b) Thirty percent exposure on high or severe erosion hazard soils.

- (c) Fifteen percent exposure on very high or very severe erosion hazard soils.

6. Rehabilitate adversely impacted sites.

## FACILITIES

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:

- (a) Road and Trail Design Elements,
- (b) Road and Trail Design Standards,
- (c) Road Maintenance Levels,
- (d) Road and Trail Maintenance Plans,
- (e) Road Traffic Management Strategies,
- (f) Road Restriction Orders and Traffic Control Devices,
- (g) Off-Road Vehicle Management Strategies,
- (h) Travel Maps and
- (i) Closure Orders.

2. Within sensitive soil resource inventory land types as shown in Management Strategy 21, the following guidelines apply:

- (a) Geotechnical input is required for road location, design, and management.
- (b) Temporary roads will be planned, located, surveyed, designed, constructed, and operated utilizing the same procedures for reviewing, decisions, selecting design elements and standards, and controlling construction, operation, and maintenance as are used for permanent transportation system roads.

- (c) Roads which access or traverse these land types may be closed seasonally to prevent resource damage.

3. Temporary roads that have been evaluated through the NEPA process are permitted.
4. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service. Vegetation shall be reestablished within one year.

## PROTECTION

1. ***Plan pest control alternatives to be biologically selective, cost beneficial and to have no irreversible adverse effect on the environment.***
2. ***Aggressively*** suppress insects and diseases using the most cost-effective suppression strategies when outbreaks threaten resource management objectives. Includes stump treatment for root rots, application of pesticides for defoliators and cone insects, etc., as necessary.
3. ***Practice high intensity prevention activities such as monitoring pest populations to be forewarned of outbreaks, stump removal for root rots, stocking control, species selection for plantings, timely salvage of weather damaged timber, etc.***
4. ***Provide a moderate level of fire prevention activities consisting of: public contact through the use of media and personal contact at campgrounds and dispersed recreation areas; and fire prevention signing at campgrounds, rest areas, main road junctions, information centers and local businesses.***
5. ***Maintain natural fuel loadings at a level that will not support high intensity fire, while meeting LWM guidelines.***
6. Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.

7. ***Hazard reduction activities will be compatible with management area objectives.***
8. ***Design fuel breaks to meet the natural characteristics of the area.***
9. ***Integrate fuel break construction with vegetation management projects.***
10. Conduct prescribed burning in such a manner that it will conform to applicable provi-

sions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.

11. Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.

## MANAGEMENT STRATEGY 17

### PRIMARY RANGE

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#### GOAL

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Provide sustainable levels of forage production for livestock use on primary range areas while moving toward or maintaining good range conditions.

#### DESCRIPTION

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This strategy can be applied only to those acres designated as suitable for livestock forage on primary lands.

The landscape will appear as a mosaic of meadows and fringes of timber stands. Management activities are evident and may dominate the natural landscape.

Lands within this management area are described by being capable and suitable for forage production where no tree species are present. These are the non-forest vegetated lands, including both wet and dry meadows, utilized and preferred by livestock. Forage within this management area will be available for use by cattle, sheep and wildlife. Grazing will be an emphasized use at the extensive utilization level.

When conflicts exist between range management and other resources, the conflict will be resolved in favor of the range resource, subject to rights under law and regulation.

This area does not include class I, II and III streams, or their associated riparian zones.

#### STANDARDS AND GUIDELINES

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##### RECREATION - ROADED NATURAL

1. *Manage the area for Modification Visual Quality Objective.*

2. *Allow for dispersed recreation activities such as hunting, hiking and the gathering of forest products.*

3. *Manage trails and dispersed occupancy sites in a manner not in conflict with range management activities and forage resource values.*

4. Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.

5. *Prohibit vehicle use off of roads where this activity threatens livestock and/or damages forage production or other resources.*

6. Rehabilitate deteriorated recreation use areas.

7. Protect Special Dispersed Features, including trails, from adverse impacts until management of the special dispersed feature is addressed in an environmental analysis. The environmental analysis shall propose alternative management practices and mitigation measures where appropriate.

8. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.

9. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is dis-

covered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.

10. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
11. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
12. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
13. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
14. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
15. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

## WILDERNESS

1. This element is not applicable under a livestock forage management strategy.
2. Project plans will assure that Wilderness boundaries are not violated.

## WILDLIFE, FISH AND PLANTS

1. Permit wildlife and fish projects that are compatible with range management activities and forage resource values.
2. ***Allotment management practices will provide sufficient forage of suitable species at the end of the grazing season for wildlife needs.***
3. Existing and Proposed Endangered, Threatened and Sensitive Species

Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

4. Management practices for some selected species are as follows:

- (a) Deer and Elk - Maintain summer range to provide forage, hiding and thermal cover. A restricted operating period from April 1 to June 30 may be imposed in identified deer or elk fawning or calving areas.
- (b) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are appar-

ently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (c) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats

within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

**5. *Natural debris, plus trees needed for a future supply, will be maintained and managed to:***

- (a) ***Maintain or enhance stream channel and bank structure so as to protect water quality.***
- (b) ***Provide structural fish habitat to meet the objective (smolt habitat capability or resident fish populations) provided for in the Forest Plan.***

**RANGE**

- 1. *Non-forest vegetated areas will be managed to achieve or maintain a forage condition rating of good or to the site's capability.***
- 2. *Manage vegetation to promote growth of desirable forage species.***
- 3. *Forage production and utilization may be achieved with the following practices:***

- (a) ***Water development***
- (b) ***Seeding***
- (c) ***Fertilization***
- (d) ***Fence construction***
- (e) ***Corrals***
- (f) ***Noxious weed control (chemical)***
- (g) ***Prescribed fire***
- (h) ***Mechanical restoration***
- (i) ***Control of tree encroachment***
- (j) ***Salting***
- (k) ***Rest rotation***
- (l) ***Herding***

- 4. Provide annual permittee plans for livestock distribution and use patterns.
- 5. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
- 6. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.
- 7. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utilization standards which are lower or rarely higher when associated with intensive grazing systems and specific vegetation management objectives which will meet resource management objectives and the intent of the management strategy. The standards include cumulative annual use by big game and livestock. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or



twig length (e.g. utilization is 50 percent if 50 out of 100 leaders are browsed). Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory

condition is anything not meeting satisfactory conditions. Allowable use of available forage (Maximum percent of annual utilization by big game and livestock) is:

#### RANGE MANAGEMENT INTENSITY

	Minimum 1/	Extensive 2/	Intensive 3/
<b>Forested Areas</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Grasslands</b>			
-Satisfactory Condition	50%	55%	60%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Shrublands</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-25%	0-30%	0-35%

1/ Minimum - Minimum amount of improvements; simple grazing system.

2/ Extensive - Most or all improvements are non-structural; rotation grazing systems used.

3/ Wide variety of structural and non-structural improvements; rotation grazing systems used.

#### TIMBER

1. ***Practices to eliminate tree encroachment on these areas will be utilized.***

2. All silvicultural prescriptions will be approved by a certified silviculturist and reviewed by the District Ranger.

mance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

#### WATER

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.

2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in confor-

(a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.

(b) Implement and enforce BMPs.

(c) Monitor to insure that practices are correctly applied as designed.

(d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.

(e) Evaluate monitoring results and mitigate where necessary to minimize im-

- pacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.
  - (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between 1) the Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal lands) 2) the State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.
3. The following requirements will be employed in project implementation when proposed projects may affect streams:
- (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;
  - (b) Consider relation of project to riparian areas (all streams classed as I, II and III are allocated to Strategy 26);
  - (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
  - (d) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.
- 4. Acquire water rights for development of non-reserved uses.
  - 5. Design project water monitoring as appropriate.
  - 6. **Use unpalatable plant species for erosion control projects.**
  - 7. In-stream flows on National Forest System lands should be protected through analysis of proposed water uses, diversion and transmission applications, and renewal of permits.
  - 8. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.
  - 9. **Allow for watershed restoration projects.**
- ## MINERALS
- 1. **Prohibit aggregate source development and stockpile sites in primary range.**
  - 2. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
  - 3. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
  - 4. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.

5. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

## HUMAN AND COMMUNITY DEVELOPMENT

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.
3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

## LANDS

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.

3. **Use control measures to limit livestock access to chemically treated utility corridors.**

4. Direct applications for electronic sites toward use of sites in the following order:

- (a) Utilizing residual capacity of existing sites.

- (b) Develop new sites identified in the Forest-wide Electronic Site Plan.

5. insure that proposed projects do not have adverse effect on lands included in active exchanges.

6. Develop rights-of-ways as necessary to implement projects.

7. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.

8. Establish and maintain property boundaries on lands administered by the Forest Service.

## SOILS

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.

2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in significant detrimental displacement, compaction, mass wasting, or erosion.

3. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.

4. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory:

- (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils.
  - (b) Thirty percent exposure on high or severe erosion hazard soils.
  - (c) Fifteen percent exposure on very high or very severe erosion hazard soils.
5. Rehabilitate adversely impacted sites.
  6. No more than 10 percent of an activity area to be compacted, puddled or displaced upon completion of a project (not including permanent roads or landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices, including roads and landings. Permanent recreation facilities or other permanent facilities are exempt.
- (h) Travel Maps
  - (i) Closure Orders
2. Within sensitive soil resource inventory land types as shown in Management Strategy 21, the following guidelines apply:
    - (a) Geotechnical input is required for road location, design, and management.
    - (b) Temporary roads will be planned, located, surveyed, designed, constructed, and operated utilizing the same procedures for reviewing, decisions, selecting design elements and standards, and controlling construction, operation, and maintenance as are used for permanent transportation system roads.
    - (c) Roads which access or traverse these land types may be closed seasonally to prevent resource damage.

## FACILITIES

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:
  - (a) Road and Trail Design Elements
  - (b) Road and Trail Design Standards
  - (c) Road Maintenance Levels
  - (d) Road and Trail Maintenance Plans
  - (e) Road Traffic Management Strategies
  - (f) Road Restriction Orders and Traffic Control Devices
  - (g) Off-Road Vehicle Management Strategies

## PROTECTION

1. Plan pest control alternatives to be biologically selective, cost beneficial and to have no irreversible adverse effect on the environment.
2. **Permit low intensity prescription fire, to protect, maintain and enhance forage production.**
3. **Provide a low level of prevention activities limited primarily to public contact through patrol and fire prevention signing at campgrounds, rest areas, main access road junctions and information centers.**
4. **Maintain natural fuel loadings at a level which meets protection standards and re-**

**source objectives in a cost-efficient manner.**

5. Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.
6. Hazard reduction activities will be compatible with management area objectives.
7. ***Design fuel breaks to meet the natural characteristics of the area.***

**8. *Integrate fuel break construction with vegetation management projects.***

9. Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.
10. Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.

## MANAGEMENT STRATEGY 18

### SECONDARY RANGE

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#### GOAL

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Provide optimum and sustainable levels of forage production for livestock use on secondary range areas while moving toward or maintaining good range conditions.

#### DESCRIPTION

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This strategy can be applied only to those acres designated as suitable for livestock forage on secondary range lands.

The landscape will appear as a mosaic of meadows and fringes of timber stands. Management activities are evident and may dominate the natural landscape.

Lands within this management area are described by being capable and suitable for forage production where no tree species are present. These are the non-forest vegetated lands, including both wet and dry meadows, utilized by livestock only after primary range is grazed. Forage within this management area will be available for use by cattle, sheep and wildlife. Grazing will be an emphasized use at the extensive utilization level.

When conflicts exist between range management and other resources, the conflict will be resolved in favor of the range resource, subject to rights under law and regulation.

This area does not include class I, II and III streams, or their associated riparian zones.

#### STANDARDS AND GUIDELINES

---

##### RECREATION - ROADED NATURAL

1. *Manage the area for Modification Visual Quality Objective.*

2. *Allow for dispersed recreation activities such as hunting, hiking and the gathering of forest products.*

3. *Manage trails and dispersed occupancy sites in a manner not in conflict with range management activities and forage resource values.*

4. Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.

5. *Prohibit vehicle use off of roads where this activity threatens livestock and/or damages forage production or other resources.*

6. Rehabilitate deteriorated recreation use areas.

7. Protect Special Dispersed Features, including trails, from adverse impacts until management of the special dispersed feature is addressed in an environmental analysis. The environmental analysis shall propose alternative management practices and mitigation measures where appropriate.

8. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.

9. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is dis-

covered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.

10. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
11. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
12. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
13. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
14. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
15. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

## WILDERNESS

1. This element is not applicable under a live-stock forage management strategy.
2. Project plans will assure that Wilderness boundaries are not violated.

## WILDLIFE, FISH AND PLANTS

1. ***Permit wildlife and fish projects that are compatible with range management activities and forage resource values.***
2. ***Allotment management practices will provide sufficient forage of suitable species at the end of the grazing season for wildlife needs.***
3. Existing and Proposed Endangered, Threatened and Sensitive Species

Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

4. Management practices for some selected species are as follows:

- (a) Deer and Elk - Maintain summer range to provide forage, hiding and thermal cover. A restricted operating period from April 1 to June 30 may be imposed in identified deer or elk fawning or calving areas.
- (b) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are appar-

ently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (c) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats



within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

5. Natural debris, plus trees needed for a future supply, will be maintained and managed to:
  - (a) Maintain or enhance stream channel and bank structure so as to protect water quality.
  - (b) Provide structural fish habitat to meet the objective (smolt habitat capability or resident fish populations) provided for in the Forest Plan.

## RANGE

1. ***Non-forest vegetated areas will be managed to achieve or maintain a forage condition rating of good or to the site's capability.***
2. ***Manage vegetation to promote growth of desirable forage species.***
3. ***Forage production and utilization may be achieved with the following practices:***

- (a) ***Water development***
- (b) ***Seeding***
- (c) ***Fertilization***
- (d) ***Fence construction***
- (e) ***Corrals***
- (f) ***Noxious weed control (chemical)***
- (g) ***Prescribed fire***
- (h) ***Mechanical restoration***
- (i) ***Control of tree encroachment***
- (j) ***Salting***
- (k) ***Rest rotation***
- (l) ***Herdng***

4. Provide annual permittee plans for livestock distribution and use patterns.
5. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
6. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.

## TIMBER

1. ***Practices to eliminate tree encroachment on these areas will be utilized.***
2. All silvicultural prescriptions will be approved by a certified silviculturist and reviewed by the District Ranger.

**WATER**

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.
2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.
- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.
- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protec-

tion of beneficial uses. Consider recommending adjustment of water quality standards.

- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between 1) the Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal lands) and 2) the State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.
3. The following requirements will be employed in project implementation when proposed projects may affect streams:
  - (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;
  - (b) Consider relation of project to riparian areas (all streams classed as I, II and III are allocated to Strategy 26);
  - (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
  - (d) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.
4. Acquire water rights for development of non-reserved uses.

5. Design project water monitoring as appropriate.
6. **Use unpalatable plant species for erosion control projects.**
7. In-stream flows on National Forest lands should be protected through critical analysis of proposed water uses, diversion and transmission applications, and renewal of permits.
8. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.
9. Allow for watershed restoration projects.

#### MINERALS

1. Develop and manage new and existing aggregate sources in secondary range lands in compliance with approved Rock Resource Development Plan and an approved environmental analysis.
2. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
3. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
4. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.
5. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation

costs and formulated using technical and other resource input.

#### HUMAN AND COMMUNITY DEVELOPMENT

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.
3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

#### LANDS

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.
3. **Use control measures to limit livestock access to chemically treated utility corridors.**
4. **Direct applications for electronic sites toward use of sites in the following order:**

- (a) **Utilizing residual capacity of existing sites.**
- (b) **Develop new sites identified in the Forest-wide Electronic Site Plan.**
- 5. Insure that proposed projects do not have adverse effect on lands included in active exchanges.
- 6. Develop rights-of-ways as necessary to implement projects.
- 7. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.
- 8. Establish and maintain property boundaries on lands administered by the Forest Service.

## SOILS

- 1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
- 2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
- 3. No more than 10 percent of an activity area should be compacted, puddled or displaced upon completion of project (not including permanent roads or landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices, including roads and landings. Permanent recreation facilities or other permanent facilities are exempt.
- 4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.

- 5. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory:
  - (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils.
  - (b) Thirty percent exposure on high or severe erosion hazard soils.
  - (c) Fifteen percent exposure on very high or very severe erosion hazard soils.
- 6. Rehabilitate adversely impacted sites.

## FACILITIES

- 1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:
  - (a) Road and Trail Design Elements,
  - (b) Road and Trail Design Standards,
  - (c) Road Maintenance Levels,
  - (d) Road and Trail Maintenance Plans,
  - (e) Road Traffic Management Strategies,
  - (f) Road Restriction Orders and Traffic Control Devices,
  - (g) Off-Road Vehicle Management Strategies,
  - (h) Travel Maps and
  - (i) Closure Orders.
- 2. Within sensitive soil resource inventory land types as shown in Management Strategy 21, the following guidelines apply:

- (a) Geotechnical input is required for road location, design, and management.
  - (b) Temporary roads will be planned, located, surveyed, designed, constructed, and operated utilizing the same procedures for reviewing, decisions, selecting design elements and standards, and controlling construction, operation, and maintenance as are used for permanent transportation system roads.
  - (c) Roads which access or traverse these land types may be closed seasonally to prevent resource damage.
- 3. Temporary roads that have been evaluated through the NEPA process are permitted.
  - 4. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service. Vegetation shall be reestablished within one year.

#### PROTECTION

- 1. Plan pest control alternatives to be biologically selective, cost beneficial and to have no irreversible adverse effect on the environment.
- 2. ***Permit low intensity prescription fire, to protect, maintain and enhance forage production.***

- 3. ***Provide a low level of prevention activities limited primarily to public contact through patrol and fire prevention signing at campgrounds, rest areas, main access road junctions and information centers.***
- 4. ***Maintain natural fuel loadings at a level which meets protection standards and resource objectives in a cost-efficient manner.***
- 5. Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.
- 6. Hazard reduction activities will be compatible with management area objectives.
- 7. ***Design fuel breaks to meet the natural characteristics of the area.***
- 8. ***Integrate fuel break construction with vegetation management projects.***
- 9. Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.
- 10. Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.

**MANAGEMENT STRATEGY 19**  
**SPOTTED OWL HABITAT**

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**GOAL**

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Provide suitable habitat to insure continued existence of a well-distributed population of Northern spotted owls throughout the Forest.

**DESCRIPTION**

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This strategy can be applied only to those acres designated as suitable for spotted owl habitat. Spotted owl habitat is defined as timber stands of 60 acres or larger generally containing the following characteristics:

1. Relatively large diameter of dominant trees in the stand.
2. Multi-layered canopy of trees with a moderate to high canopy closure in overstory, mid-story, and understory layers.
3. Large, tall trees with cavities, broken tops, mistletoe, or platforms of branches capable of holding accumulated organic matter suitable for nesting.
4. Dead standing trees and fallen decayed trees to support abundant populations of prey species, especially northern flying squirrel and woodrat.

When conflicts exist between spotted owl habitat and other resources, the conflict will be resolved in favor of the spotted owl habitat, subject to rights under law and regulation.

This area includes class I, II and III streams, and their associated riparian zones.

**STANDARDS AND GUIDELINES**

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**RECREATION - SEMI-PRIMITIVE MOTORIZED**

1. *Manage the area for Retention Visual Quality Objective.*
2. *Allow for dispersed recreation activities such as hunting, observing wildlife and the gathering of forest products.*
3. *Manage trails and dispersed occupancy sites in a manner not in conflict with spotted owl habitat resource values.*
4. *Discourage or prohibit recreation use where public safety is threatened.*
5. Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.
6. *Off-road vehicle recreation use allowed only on designated roads and trails.*
7. Rehabilitate deteriorated recreation use areas.
8. Protect Special Dispersed Features from adverse impacts until management of the special dispersed feature is addressed in an environmental analysis. The environmental analysis shall propose alternative management practices and mitigation measures where appropriate.
9. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.

10. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
11. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
12. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
13. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
14. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
15. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
16. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

#### **WILDERNESS**

1. This element is not applicable under an spotted owl habitat management strategy.

2. Project plans will assure that Wilderness boundaries are not violated.

#### **WILDLIFE, FISH AND PLANTS**

1. Management practices for the Northern Spotted owl are as follows:
  - (a) Amount of suitable habitat - The intent is to insure that breeding pairs in areas designed for spotted owls have sufficient habitat within their home ranges to meet overall life needs for survival and successful reproduction. The amounts of suitable spotted owl habitat at each designated habitat area will vary by physiographic province. The acreages should occur in at least one 300-acre stand of habitat that includes the nest site. Other habitats within 1.5 miles of the nest site should be as contiguous as possible. The following amounts of suitable spotted owl habitat designated per site are: 1,500 acres within 1.5 miles of nest site in the Cascade Mountains and 1,000 acres within 1.5 miles of nest site in the Siskiyou Mountains. Habitat areas may vary from the acreage objective if approved by the Regional Forester. A habitat area may be larger than the acreage objective for a suitable habitat, if it meets at least one of the following two criteria: 1) the area contains more than one breeding pair of spotted owls, and it has been demonstrated that the reproductive rate, on average over time, has exceeded that necessary to replace the breeding adults; and 2) the area is a key link in the network. A key link is defined as a spotted owl habitat area which, if not designated, would result in a separation of the network contrary to spacing guidelines. Key links should be larger than the spotted owl habitat area acreage objective, especially where the local landscape contains little spotted owl habitat in lands unsuitable for timber production or in reserved lands, and where the general forest landscape is heavily fragment-

ed. Designated spotted owl habitat areas may contain less than the acreage objective for habitat where: 1) Breeding success within the previous two years has been documented and the amount and quality of spotted owl habitat has not declined significantly within the pair's home range during the previous two years; 2) The habitat area is necessary to meet spacing requirements and less than the suitable habitat acreage objective exists; 3) In addition, if acreage of suitable habitat is less than 1,000 acres and meets one of the above criteria, potential habitat that will bring the total existing and potential habitat to 1,000 acres shall be added.

- (b) Spacing of designated habitat areas - The intent is to insure that reproductive individuals are well distributed so they can interact with others in the planning area (the regional population). The ability to interact provides for recolonization of unoccupied habitats, interchange of genetic resources, and resilience of populations to normal fluctuations in births and deaths. Distances between habitat areas within clusters of three or more spotted owl habitat areas shall be not more than 1.5 miles measures edge to edge. Distances between clusters of three or more spotted owl habitat areas or between habitats in land unsuitable for timber production that can support at least three pairs, shall be not more than 12 miles measured edge to edge. Distances between all other habitat areas (cluster, single, or habitat area within land unsuitable for timber that could support at least one pair) shall be not more than six miles measured edge to edge. Distances between spotted owl habitat areas may be extended 20 percent (that is, up to 7.2 miles for singles and 14.4 miles for clusters). This variation applies only where needed to locate a habitat area at a site with higher level of spotted owl occupancy (i.e., contains pair, rather

than single bird) than would be otherwise available. Each designated habitat area should link to at least three other areas within the spacing standards. These three other areas can be other designated spotted owl habitat areas, or suitable spotted owl habitat in lands unsuitable for timber production. A cluster is not considered to be three distinct areas for the purpose of this positioning. Spacing standards apply across boundaries of adjacent National Forests. National Forests adjacent to other ownerships having suitable spotted owl habitat that will be maintained over time should provide habitats to help insure distribution across ownership boundaries; and, as far as practicable, coordinate their efforts to identify and designate habitat areas. In this regard, other ownerships include, but are not restricted to, USDI Bureau of Land Management and USDI National Park Service.

- (c) Threatened and Endangered Species - No spotted owl habitat management activity shall adversely affect Federally-listed threatened or endangered species or their habitats.

- (d) Identification of suitable habitat - The intent is to provide consistency and accuracy in identifying forest stand conditions that constitute suitable habitat for spotted owls. Its principal application will be in inventory, mapping and monitoring to assure that the right kinds of habitat are being designated or counted as appropriate.

- (e) Vegetation types - Vegetation types in which spotted owl habitat occurs are:

Spruce/Cedar/Hemlock Forest  
 Cedar/Hemlock/Douglas-fir  
 Mixed Conifer Forest  
 California Mixed Evergreen Forest  
 Silver fir/Douglas-fir Forest  
 Red fir Forest  
 Ponderosa Shrub Forest with  
 White fir/Grand fir



Fir/Hemlock Forest  
Grand fir/Douglas-fir Forest  
Douglas-fir Forest

- (f) Stand structures - The following structural characteristics identify forest stands suitable for spotted owls. These conditions occur at different ages for each vegetation type and location; but, in general, they occur in stands considered to be mature and old-growth: 1) Relatively large diameter of dominant trees in the stand; 2) Multi-layered canopy of trees with a moderate to high canopy closure in overstory, mid-story and understory layers; 3) Large, tall trees with cavities, broken tops, mistletoe, or platforms of branches capable of holding accumulated organic matter suitable for nesting; 4) Dead standing trees and fallen decayed trees to support abundant populations of prey species, especially northern flying squirrel and woodrat; 5) Stands with the above conditions and larger than 60 acres in area.
- (g) The Forest will specify the inventory and mapping criteria used to identify suitable spotted owl habitat in Forest planning, subject to approval by the Regional Forester.
- (h) Suitable habitat (vegetation types and structural or developmental stages) shall be identified in the Forest Plan for inventory, mapping and monitoring purposes in accordance with the general description above.
- (i) The intent in locating designated habitat areas is to designate spotted owl habitat areas without unnecessary restrictions of other uses of the forest, to the extent possible while meeting the management requirement for spotted owl population viability. The criteria for locating designated habitat areas is as follows: 1) Map spotted owl habitat in the following land use designations: lands withdrawn by Chief's authority or higher, other lands unsuitable for timber production, lands suitable for tim-

ber production with reduced yields and lands suitable for timber production with full yields; 2) Map the known locations of spotted owls and show locations of breeding pairs, pairs with verified non-breeding status or breeding status unknown, and other spotted owl sighting; 3) Identify areas in land unsuitable for timber production that have at least the specified acres of habitat within 1.5 miles from a central point in Oregon, and 2.1 miles from a central point in Washington; 4) Access the distribution of habitat relative to spacing standards to determine if additional spotted owl habitat areas need to be designated. If designation is necessary, use mapped owl locations as the priorities for selecting spotted owl habitat areas in lands suitable for timber production; 5) Designate spotted owl habitat areas on lands suitable for timber production if needed to meet the spacing standard. If a verified breeding pair is located closer than six miles from the edge of lands unsuitable for timber production, that areas can be designated if there are no verified breeding pairs within the adjacent lands unsuitable for timber production. The preference is to provide spotted owl habitat areas in a cluster arrangement. Use reduced yield lands before full yield lands where compatible with other criteria; 6) Use the following priorities in designating spotted owl habitat area on lands suitable for timber production (listed in decreasing order of priority): Verified occupancy by breeding pairs within the last five years. If verification is not based on data from the current year, the site should meet, or approximately meet, Regional standards for habitat amounts and characteristics, remained stable since the year of verification. Verified occupancy by breeding pairs more than five years ago. If verification is not based on data from the current year, the site should meet Regional standards for habitat amounts and characteristics, or the habitat amounts and characteristics

must have remained stable since the year of verification. Verified occupancy by pairs; verified non-breeding, or breeding status or success unknown. If verification is not based on data from the current year, the site should meet or approximately meet Regional standards for habitat amounts and characteristics, or the habitat amounts and characteristics must have remained stable since the year of verification. Presence of spotted owls; pair status unknown. Areas with an appropriate amount of suitable owl habitat, within the radius prescribed, where the presence or absence of owls is unknown. An appropriate amount of habitat is that specified in Standard and Guideline 1. Amount of Suitable Habitat in Designated Areas.

- (j) Implementation of these standards and guidelines shall be achieved in a cost-effective manner. Their application will result in designation of spotted owl habitat capable of supporting pairs of spotted owls through time. The Regional Forester will approve National Forest spotted owl habitat networks which result from the application of these standards and guidelines.
  - (k) Develop wildlife and fish projects that take advantage of the unique characteristics of spotted owl habitat.
2. Existing and Proposed Endangered, Threatened and Sensitive Species:

Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for exist-

ing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

3. Management practices for some selected species are as follows:

- (a) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.
- (b) Goshawk - Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (c) Woodpeckers - (Cavity Nesters) Cavity nesting habitat will be allowed to occur at natural levels on coniferous forest lands. This should provide for 100 percent of the potential population level for cavity nesting species. This may require leaving green trees standing as well, in order to maintain the snags through the rotation. Soft snags will not be removed except for protection or human safety. Snags should be uniformly distributed insofar as practical. Land areas containing activities which impact amounts of large woody

material (LWM) on the site shall have LWM management prescription(s). The prescription will not only be site specific but will also consider maintenance of LWM in perpetuity. At a minimum, a "moderate" amount of LWM will be left after project completion. The moderate range is 10 to 20 pieces of Class I and II logs per acre and all existing Class III, IV and V logs, except for incidental amounts removed during management activities.

- (d) Resident Trout and Steelhead - Water quality law establishes a level of aquatic resource management that will maintain the Forest's fisheries habitat at a level capable of sustaining or exceeding minimum viable populations for the various species of anadromous and resident fish. Cold water production for both on and off Forest fish needs is identified as a principal objective for the Forest's streams. Maintain existing fish habitat capability and develop fish habitat improvement projects to fully utilize potential smolt production capability of Forest anadromous streams and resident fish in other streams and lakes. Coordinate land management activities with the California Department of Fish and Game and Oregon Department of Fish and Wildlife objectives. Natural debris, plus trees needed for a future supply, will be maintained and managed to: 1) enhance stream channel and bank structure so as to protect water quality; and 2) provide structural fish habitat to meet the objectives of small habitat capability or resident fish populations provided for in the Forest Plan.
- (e) Deer and Elk - Maintain summer range to provide forage, hiding and thermal cover. A restricted operating period from April 1 to June 30 may be imposed in identified deer or elk fawning or calving areas.
- (f) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered.

Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (g) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns estab-

lished by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

4. Evaluate the effects of proposed projects on wildlife habitat in all environmental analysis. Discuss pertinent components of the habitat such as edge, migration routes, vegetation diversity and microclimate. Specify mitigation measures when the area is disturbed.

#### RANGE

1. ***Livestock grazing is permitted at levels which maintain the desired spotted owl habitat characteristics and species composition of the understory. Forage utilization will be limited to that not needed to***

***maintain indigenous plant species. Exotic plants cannot be introduced.***

- 2. Salt blocks or water developments are allowed if livestock use does not change the plant composition.***
3. Provide annual permittee plans for livestock distribution and use patterns. Where conflicts cannot be resolved or mitigated, relocation and/or removal of livestock will be considered.
4. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
5. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.
6. Allow range improvements.
7. Allow increases in permitted grazing use to capture increases in transitory range caused

by timber cutting where this is compatible with the suitable owl habitat management objectives.

8. Prescribe kind and amount of grass seeding in silviculture prescriptions.
9. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utilization standards which are lower or rarely higher when associated with intensive grazing systems and specific vegetation management objectives which will meet resource management objectives and the intent of the management strategy. The standards include cumulative annual use by big game and livestock. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or twig length (e.g. utilization is 50 percent if 50 out of 100 leaders are browsed). Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory condition is anything not meeting satisfactory conditions. Allowable use of available forage (Maximum percent of annual utilization by big game and livestock) is:

## RANGE MANAGEMENT INTENSITY

	Minimum 1/	Extensive 2/	Intensive 3/
<b>Forested Areas</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Grasslands</b>			
-Satisfactory Condition	50%	55%	60%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Shrublands</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-25%	0-30%	0-35%

- 1/ Minimum - Minimum amount of improvements; simple grazing system.  
 2/ Extensive - Most or all improvements are non-structural; rotation grazing systems used.  
 3/ Wide variety of structural and non-structural improvements; rotation grazing systems used.

## TIMBER

1. *There will not be any scheduled volume from these areas.*
2. *Timber harvest can only take place if it benefits the spotted owl habitat. The exception will be that timber harvest will be allowed in catastrophic situations such as salvage of fire or insect damage and to prevent the spread of insects and disease to areas managed for other purposes providing the owl habitat needs are not compromised or to meet the management area objectives. Salvage operations will require a project environmental analysis and be designed to minimize impact on resources. Restoration of such an area will be designed to return it to a natural state.*
3. *In the event of a need for access for salvaging timber from catastrophes, non-ground based systems, such as helicopter, are preferred.*
4. *Firewood gathering and cutting compatible with objectives of the area will be permitted.*
5. Rehabilitate and reconstruct developments and resources that have been impacted by timber sale activities.

6. All silvicultural prescriptions will be approved by a certified silviculturist and reviewed by the District Ranger.
7. The logging system design for timber sales will be reviewed by logging systems specialists designated by the Forest Supervisor. Review for feasibility, silvicultural compatibility and economics.
8. Maintain a blend of tree species approximating natural stands. In seed collections, no seed lot shall be represented by fewer than 15 families of trees of that species, well distributed across the breeding zone. In addition, no family of parent trees shall represent greater than 20 percent of a seed lot. Although any given plantation may be planted to a single species, strive for a natural seed source from a variety of species.

## WATER

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.
2. Comply with State requirements in accordance with the Clean Water Act of 1972, as

amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.
- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.
- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.
- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between 1) the Oregon Department of

Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal lands) and 2) the State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.

3. The following requirements will be employed in project implementation when proposed projects may affect streams:
  - (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;
  - (b) Consider relation of project to riparian areas (all streams classed as I, II and III are allocated to Strategy 26);
  - (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
  - (d) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.
4. Acquire water rights for development of non-reserved uses.
5. Design project water monitoring as appropriate.
6. Allow for watershed restoration projects.
7. In-stream flows on National Forest lands should be protected through critical analysis of proposed water uses, diversion and transmission applications, and renewal of permits.

8. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.
9. ***Comply with the specific direction for management of each of the municipal watersheds as specified in management agreements between the U.S. Department of Agriculture or Forest and municipalities.***

## MINERALS

1. ***Prohibit development of aggregate rock sources.***
2. ***Prohibit expansion of existing aggregate sources.***
3. ***Rehabilitate aggregate sources as they are closed.***
4. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
5. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
6. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.
7. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

## HUMAN AND COMMUNITY DEVELOPMENT

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.
3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

## LANDS

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.
3. Direct applications for electronic sites toward use of sites in the following order:
  - (a) Utilizing residual capacity of existing sites.
  - (b) Developing new sites identified in the Forest-wide Electronic Site Plan.



4. Insure that proposed projects do not have adverse effect on lands included in active exchanges.
5. Develop rights-of-ways as necessary to implement projects.
6. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.
7. Establish and maintain property boundaries on lands administered by the Forest Service.

## SOILS

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. No more than 10 percent of an activity area should be compacted, puddled or displaced upon completion of project (not including permanent roads or landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices, including roads and landings. Permanent recreation facilities or other permanent facilities are exempt.
4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.
5. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory:

- (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils.
- (b) Thirty percent exposure on high or severe erosion hazard soils.
- (c) Fifteen percent exposure on very high or very severe erosion hazard soils.

6. Rehabilitate adversely impacted sites.

## FACILITIES

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:
  - (a) Road and Trail Design Elements,
  - (b) Road and Trail Design Standards,
  - (c) Road Maintenance Levels,
  - (d) Road and Trail Maintenance Plans,
  - (e) Road Traffic Management Strategies,
  - (f) Road Restriction Orders and Traffic Control Devices,
  - (g) Off-Road Vehicle Management Strategies,
  - (h) Travel Maps and
  - (i) Closure Orders.
2. Within sensitive soil resource inventory land types as shown in Management Strategy 21, the following guidelines apply:
  - (a) Geotechnical input is required for road location, design, and management.
  - (b) Temporary roads will be planned, located, surveyed, designed, constructed, and operated utilizing the same procedures for reviewing, decisions,

selecting design elements and standards, and controlling construction, operation, and maintenance as are used for permanent transportation system roads.

- (c) Roads which access or traverse these land types may be closed seasonally to prevent resource damage.
- 3. Temporary roads that have been evaluated through the NEPA process are permitted.
- 4. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service. Vegetation shall be reestablished within one year.

## PROTECTION

- 1. Plan pest control alternatives to be biologically selective, cost beneficial and to have no irreversible adverse effect on the environment.

- 2. ***Provide a low level of prevention activities limited primarily to public contact through patrol and fire prevention signing at campgrounds, rest areas, main access road junctions and information centers.***
- 3. Use prescription fire to obtain desired ecological characteristics of the area.
- 4. Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.
- 5. Hazard reduction activities will be compatible with management area objectives.
- 6. Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.
- 7. Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.

## MANAGEMENT STRATEGY 20

### TIMBER SUITABLE 1

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#### **GOAL**

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Manage the lands emphasizing the production of timber volumes, as measured in cubic feet.

#### **DESCRIPTION**

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This strategy emphasizes full yield timber management within the capability of the land management requirements of other resources. It is applied only to lands suitable for timber management.

The managed forest will eventually include timber stands which have a representation of all age classes up to rotation age with trees reaching a maximum diameter of approximately 18 inches at maturity. The results of management activities are evident in the form of roads, log landings, tree stumps, slash, thinned stands and regeneration units. Residual tree tops, limbs and unmerchantable stems from thinnings are present for short periods prior to slash treatment.

When conflicts exist between timber management and other resources, the conflict will be resolved in favor of the timber resource subject to rights under law and regulation.

This area does not include class I, II and III streams, or their associated riparian zones.

#### **STANDARDS AND GUIDELINES**

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##### **RECREATION - ROADED MODIFIED**

1. ***Manage the area to Maximum Modification Visual Quality Objective. Blend and shape regeneration openings with the natural terrain to the extent possible. Assess the impacts to visual resources in all project environmental analysis. Specifically address how maximum modification will be met.***

2. ***Allow for dispersed recreation activities such as hunting, fishing and the gathering of forest products.***
3. ***Manage trails and dispersed occupancy sites in a manner not in conflict with timber management activities and timber resource values.***
4. Identify the potential effect of any proposed activity on recreation opportunity spectrum class in all project environmental analysis.
5. Protect Special Dispersed Features, including trails, from adverse impacts until management of the special dispersed feature is addressed in an environmental analysis. The environmental analysis shall propose alternative management practices and mitigation measures where appropriate.
6. Rehabilitate deteriorated recreation use areas.
7. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.
8. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.

9. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
10. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
11. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
12. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
13. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
14. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.
15. Off-road vehicle recreation use is permitted when not in conflict with timber management or other resource objectives.

## WILDERNESS

1. This element is not applicable under a timber management strategy.
2. Project plans will assure that Wilderness boundaries are not violated.

## WILDLIFE, FISH AND PLANTS

1. Permit wildlife and fish projects that do not conflict with timber management activities and timber resource values.
2. Existing and Proposed Endangered, Threatened and Sensitive Species

Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance

with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

3. Management practices for some selected species are as follows:

- (a) Northern Spotted Owl - Manage this species under the standards and guidelines established in the ROD for the Supplement to the Environmental Impact Statement for an amendment to the Pacific Northwest Regional Guide. In the event that a pair of northern spotted owls are found in an area, consideration will be given to (1) the need to improve the distribution of older forest ecosystems for all associated plant and animal species; (2) providing insight into management of spotted owl habitat areas (SOHA) through experimental habitat manipulation. During the planning and scheduling phase of any project activity that may impact spotted owl habitat, conduct a biological evaluation in order to deter-

mine the degree of impact and to provide for protective measures.

- (b) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.
- (c) Goshawk - Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (d) Woodpeckers - (Cavity Nesters) Leave sufficient wildlife trees (hard snags or green trees designated to become snags) in coniferous forest lands to provide for at least 40 percent of the potential population levels for cavity nesting species. The distribution of numbers and size class necessary to meet 40% per 100 acres is as follows:

## Siskiyou and Cascade Mixed Conifer

Size	Number
15+	119
17+	24
25+	2
Total	145

## Siskiyou and Cascade True Fir

Size	Number
15+	95
17+	7
25+	2
Total	104

Species distribution should be representative of the site's original stand. Trees selected for retention should maximize use of the stand's cull component. If the proper number and size of trees do not exist in the stand to be treated, select the proper number from the next lower size class. (i.e. if 25" trees are not available go to 17" trees). Material that satisfies the need for down woody material recruitment will come from existing down material, down woody material that is the result of a silvicultural treatment and from the trees that are designated to meet standing wildlife tree requirements. The long-term goal for large woody material (LWM) is 10 to 20 pieces of class I and II logs per acre, and all existing class III, IV and V logs, except for incidental amounts removed during management activities. Additional green merchantable trees will not be designated unless none of the other categories exist. The expected life span of snags or dead trees in mixed conifer working groups is 30 years and in true fir working groups the life span is 20 years. The silvicultural prescription will describe the total number, size and species of wildlife trees that will be required through the next full rotation of the stand being treated. Wildlife and down woody material requirement will be included as part of the vegetative (silvicultural) prescription for each stand. Information for the prescription will be provided by a

wildlife biologist based on site by site needs. A certified silviculturist will validate the data and include it in the preparation of the final vegetative (silvicultural) prescription that implements all the interdisciplinary requirements. The logging system required, reforestation needs, slash disposal requirements and site preparation needs should be compatible with the wildlife tree distribution needs. Primary cavity excavator habitat will be met on areas no larger than 60 acres including adjacent existing harvest units. The objective is to provide well distributed habitat and allow adjacent stands to provide the needed wildlife trees for past harvest units where current standards were not met. Where past timber harvest activities created clearcuts, the acreage within a 900 foot "edge" adjacent to an uncut timber stand will be used to compute the number of wildlife trees needed to bring this common boundary "edge" area up to a minimum 20 percent potential population level for cavity-nesting species. Excess cull trees and snags in the adjacent uncut stand, (being managed at the 40 percent level), if available, can be applied to the number of wildlife trees needed in the "edge" area. If no culls or snags are available, green merchantable trees may be marked and managed for wildlife tree needs in this uncut area.

On existing large shelterwood areas it is assumed that natural mortality will occur to meet the 20 percent potential population levels needed as a minimum, however, if there are excess cull trees and snags in adjacent stands, they can be used to bring the biological potential up to 40 percent. The minimum 20 percent biological potential level will not be met for two or more decades on the area beyond the 900 foot "edge" on existing clearcut areas. By that time natural mortality will begin to occur in the new stands and sufficient trees will be managed for wildlife needs.

Selection of wildlife trees to make up for past deficits will meet the same selection criteria as in newly treated stands. Green merchantable trees will not be girdled to create wildlife snags, regardless of the situation, until 5-10 years after project completion (sale closure), in order to capture any mortality that may occur during that time. Adequacy of wildlife tree levels will be monitored as a part of the Forest Plan.

- (e) Deer and Elk - Maintain summer range to provide 20 percent forage, and at least 20 percent thermal cover for an area generally 500 to 1,000 acres. To the extent possible, timber harvesting and/or thinning should provide hiding and thermal cover between treatment areas and roads with continuous vehicle use. Hiding cover should be dense enough to hide 90 percent of a deer or elk from view at 200 feet. Hiding cover need not be continuous but gaps between screens should not exceed one-quarter of a mile. A restricted operating period from April 1 to June 30 may be imposed in identified deer or elk fawning or calving areas.
- (f) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industri-

al sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (g) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone

unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, band-tail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

## RANGE

### 1. *Permit livestock grazing on transitory ranges under the following situations:*

- (a) *Where forage occurs in natural stands or as a result of site disturbance and/or timber canopy removal on a periodic basis.*
- (b) *Where disturbed sites and/or areas under timber management can be seeded with species which improve forage production and does not restrict tree establishment and growth. (FSM 2521.02, RR Supplement #6, 2/73).*
- (c) *On forest plantations when livestock will not damage the young trees.*

### 2. Provide annual permittee plans for livestock distribution and use patterns. Where conflicts cannot be resolved or mitigated, reloca-

tion or removal of livestock will be considered.

- 3. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
- 4. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.
- 5. ***Develop structural and non-structural range improvements.***
- 6. ***Allow increases in permitted grazing use to capture increases in transitory range caused by timber cutting where this is compatible with the timber management objectives.***
- 7. ***Prescribe kind and amount of vegetative seeding in silviculture prescriptions.***
- 8. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utilization standards which are lower or rarely higher when associated with intensive grazing systems and specific vegetation management objectives which will meet resource management objectives and the intent of the management strategy. The standards include cumulative annual use by big game and livestock. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or twig length (e.g. utilization is 50 percent if 50 out of 100 leaders are browsed). Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory condition is anything not meeting satisfactory conditions. Allowable use of available forage (Maximum percent of annual utilization by big game and livestock) is:



## RANGE MANAGEMENT INTENSITY

	Minimum 1/	Extensive 2/	Intensive 3/
<b>Forested Areas</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Grasslands</b>			
-Satisfactory Condition	50%	55%	60%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Shrublands</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-25%	0-30%	0-35%

- 1/ Minimum - Minimum amount of improvements; simple grazing system.  
 2/ Extensive - Most or all improvements are non-structural; rotation grazing systems used.  
 3/ Wide variety of structural and non-structural improvements; rotation grazing systems used.

## TIMBER

1. When trees are cut for timber production objectives, the cutting shall be made in a way to assure that technology and knowledge exist to adequately restock the site within five years after final harvest (36 CFR 219.27(c)(3)).
2. Timber harvesting shall only occur on lands classified as suitable for timber production except for salvage sales, sales necessary to protect other multiple-use values or activities that meet other objectives if the Forest Plan establishes that such actions are appropriate (36 CFR 219.27(c)(1)).
3. The landscape will be predominated by a mosaic of even-aged managed timber stands although even and uneven aged management are accepted systems in this strategy. Silvicultural practices employed to accomplish management goals may include the following:
  - (a) Site preparation - chemical, mechanical, biological, manual and prescribed fire.
  - (b) Tree improvement (genetics).
  - (c) Reforestation by planting. Random natural seedlings will count towards reaching desired stocking.
  - (d) Growing stock protection from animals, insects and diseases.
  - (e) Release and weeding - chemical, mechanical, biological, manual and prescribed fire.
  - (f) Precommercial thinning.
  - (g) Fertilization.
  - (h) Commercial thinning.
  - (i) Salvage mortality as necessary.
  - (j) Final harvest - silvicultural system using shelterwood, seed tree, clearcut or selection methods. Harvest system selection will be determined by the Environmental Analysis process and documented in site-specific silvicultural prescriptions.
  - (k) *Pruning*
4. Rehabilitate and reconstruct developments and resources that have been impacted by timber sale activities if in keeping with the

goals and objectives of this management strategy.

5. The logging system design for timber sales will be reviewed by logging systems specialists designated by the Forest Supervisor. Content review will be for feasibility, silvicultural compatibility and economics.
6. The even-aged silvicultural system will be the most commonly used system in coniferous forests. The uneven-aged silvicultural system may be used when healthy, fully stocked, uneven-aged stands exist or can be created by identified treatments within a defined time period. The selection of the appropriate silvicultural system will be guided by the following criteria:
  - (a) Must permit the production of sufficient volume of marketable trees to permit utilization of all trees which meet utilization standards and are designated for harvest.
  - (b) Must permit the use of an available and acceptable logging method.
  - (c) Must be capable of providing special conditions when required by critical soil conditions or needed to achieve management objectives.
  - (d) Must permit control of existing or potential vegetation to a degree that establishment of numbers of trees and rates of growth as identified in site-specific silvicultural prescriptions for harvest areas can be achieved.
  - (e) Must promote stand structure and species composition which avoids serious risk of damage from mammals, insects, disease or wildfire and will allow treatment of existing insect, disease or fuel conditions.
  - (f) Must meet resource and vegetation management objectives identified for this management area.
7. Forest openings created by the application of even-aged silviculture shall be limited to a maximum size of 60 acres in the Douglas-fir

forest type and to a maximum size of 40 acres on all other lands of the Forest. Exceptions are permitted in the following cases:

- (a) When natural catastrophic situations such as fires, windstorms, or insect and disease attacks occur.
- (b) On an individual timber sale basis after 60-day, public notice and review by the Regional Forester.
8. When any one of the criteria described below is met and will produce a more desirable combination of benefits, the limits may be exceeded by not more than 50 percent without review by the Regional Forester or 60-day public notice.
  - (a) When larger created openings will reduce the disturbance to soil, water, fish or riparian resources, or residual vegetation by: (1) allowing economically feasible logging systems that reduce landing and road construction, or (2) locating roads away from unstable soils, and (3) by reducing soil and vegetation disturbance from dragging logs.
  - (b) Where groups of dwarf mistletoe or root rot disease infected trees need to be incorporated into the created opening to avoid infection of susceptible conifer reproduction and their inclusion cannot be achieved by centering the created opening over the area of infection.
  - (c) Where visual quality objectives require shaping and blending of openings to fit landform.
  - (d) Where larger units are needed to achieve silviculture objectives in existing areas of regeneration cutting by the shelterwood method and where destruction of the newly created stand of reproduction would occur as a result of delayed removal of shelter trees. This exception applies only to existing shelterwood units and shelterwood units under contract prior to approval of Forest Plan.

9. ***Created openings will be separated by areas generally not classed as created openings. The areas between created openings shall contain one or more logical harvest units. These areas shall be large enough and contain a stand structure to meet resource requirements of the management area. The total area of created openings contiguous to 30-acre or larger natural openings should normally be limited to an area not exceeding 1/3 the size of the natural opening and not occupying more than 1/3 of the natural opening perimeter. When openings are created adjacent to natural openings, they should be designed to retain and manage adequate vegetation along the edge in sufficient density to retain wildlife values and visual management objectives. The determination of adequate vegetation will be made by an appropriate interdisciplinary team.***
10. ***A harvested area of commercial forest will no longer be considered a created opening for silvicultural purposes when stocking surveys carried out in accordance with Regional instructions indicate prescribed crop tree stocking at or above 4.5 feet in height and free to grow.***
11. ***Strive for a reasonably balanced acreage in each age class (i.e. 20 percent of each 500 to 1,000 acre area in stands 40 feet tall with 70 percent crown closure) to obtain biological diversity and thermal cover.***
12. Reforestation, precommercial thinning and release to meet recommended (full) stocking will be addressed with site-specific silvicultural prescriptions.
13. Set harvest treatment priorities by cut categories on each District so that the stands most needing treatment are done first, wherever reasonably possible.
14. Maintain a blend of tree species approximating natural stands. In seed collections, no seed lot shall be represented by fewer than 15 families of trees of that species, well distributed across the breeding zone. In addition, no family of parent trees shall represent greater than 20 percent of a seed lot. Although any given plantation may be planted to a single species, strive for a natural seed source from a variety of species.
15. Fuelwood and other miscellaneous forest products:
  - (a) Make miscellaneous forest products such as poles, posts, boughs, Christmas trees, house-logs, etc., available on an as-needed basis consistent with resource objectives of affected management areas.
  - (b) Provide access to potential fuelwood or bring the fuelwood to convenient points in timber sale or thinning areas through the utilization of appropriate timber sale clauses or the modification of fuels management prescriptions to meet this objective.
  - (c) Allow commercial fuelwood contracts for slash disposal, thinning and site preparation.
  - (d) Open slash areas to fuelwood gathering prior to traditional disposal methods.
  - (e) Leave slash as a fuelwood source where there is no conflict with resource activity.
  - (f) Consider using the fuelwood program as a means to meet silvicultural objectives in appropriate areas, such as low productivity stands or other stands prior to reaching commercial size.
  - (g) Consider the season of year and access when implementing a fuelwood program. The public should be encouraged to burn dry wood.
  - (h) Document fuelwood availability for public uses in project environmental analysis.
  - (i) Be responsive to needs of public for fuelwood.
  - (j) Create a Forest fuelwood and miscellaneous products policy to include fuelwood inventory.

16. Utilization standards for timber harvested will meet the standards as stated in the Pacific Northwest Regional Guide, Standards and

Guidelines 4-2 and in Table 3-6. Standards in timber sale contracts may vary depending on markets and costs of harvesting.

#### UTILIZATION STANDARDS

Type Tree	Minimum dbh.	Minimum Top dib.
First Decade Existing mature trees, except lodgepole pine (first and future decades)	9	6
Existing commercial thinning size trees and lodgepole pine	7	4
Future Decades All species, except surviving stands of first decade existing mature.	7	4

#### WATER

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.
2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.

- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.
- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.
- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding be-

- tween: 1) The Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal lands) and 2) The State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.
3. The following requirements will be employed in project implementation when proposed projects may affect streams:
    - (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;
    - (b) Consider relation of project to riparian areas (all streams classed as I, II and III are allocated to Strategy 26);
    - (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
    - (d) In project planning, consider basin constraint percentages by subwatershed.
  4. Acquire water rights for development of non-reserved uses.
  5. Design project water monitoring as appropriate.
  6. Allow for watershed restoration projects.
  7. In-stream flows on National Forest lands should be protected through critical analysis of proposed water uses, diversion and transmission applications, and renewal of permits.

8. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.

## **MINERALS**

1. Develop and manage new and existing aggregate sources in compliance with approved Rock Resource Development Plan and an approved environmental analysis.
2. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
3. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
4. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.
5. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

## **HUMAN AND COMMUNITY DEVELOPMENT**

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to

increase awareness and participation will be used.

3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

## LANDS

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.
3. **Use control measures to prohibit livestock access to chemically treated corridors.**
4. Direct applications for electronic sites toward use of sites in the following order:
  - (a) Utilizing residual capacity of existing sites.
  - (b) Develop new sites identified in the Forest-wide Electronic Site Plan.
5. Insure that proposed projects do not have adverse effect on lands included in active exchanges.
6. Develop rights-of-ways as necessary to implement projects.
7. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.
8. Establish and maintain property boundaries on lands administered by the Forest Service.

## SOILS

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. No more than 10 percent of an activity area should be compacted, puddled or displaced upon completion of project (not including permanent roads or designed road landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices, including roads and landings. Permanent recreation facilities or other permanent facilities are exempt.
4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.
5. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory:
  - (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils.
  - (b) Thirty percent exposure on high or severe erosion hazard soils.

- (c) Fifteen percent exposure on very high or very severe erosion hazard soils.
6. Rehabilitate adversely impacted sites.

## FACILITIES

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:
  - (a) Road and Trail Design Elements,
  - (b) Road and Trail Design Standards,
  - (c) Road Maintenance Levels,
  - (d) Road and Trail Maintenance Plans,
  - (e) Road Traffic Management Strategies,
  - (f) Road Restriction Orders and Traffic Control Devices,
  - (g) Off-Road Vehicle Management Strategies,
  - (h) Travel Maps and
  - (i) Closure Orders.
2. Within sensitive soil resource inventory land types as shown in Management Strategy 21, the following guidelines apply:
  - (a) Geotechnical input is required for road location, design, and management.
  - (b) Temporary roads will be planned, located, surveyed, designed, constructed, and operated utilizing the same procedures for reviewing, decisions, selecting design elements and standards, and controlling construction, operation, and maintenance as are used for permanent transportation system roads.

- (c) Roads which access or traverse these land types may be closed seasonally to prevent resource damage.
3. Temporary roads that have been evaluated through the NEPA process are permitted.
  4. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service. Vegetation shall be reestablished within one year.

## PROTECTION

1. Plan pest control alternatives to be biologically selective, cost beneficial and to have no irreversible adverse effect on the environment.
2. **Aggressively** suppress insects and diseases using the most cost-effective suppression strategies when outbreaks threaten resource management objectives. Includes stump treatment for root rots, application of pesticides for defoliators and cone insects, etc., as necessary.
3. Practice high intensity prevention activities such as monitoring pest populations to be forewarned of outbreaks, stump removal for root rots, stocking control, species selection for plantings, timely salvage of weather damaged timber, etc.
4. **Provide a moderate level of fire prevention activities consisting of: public contact through the use of media and personal contact at campgrounds and dispersed recreation areas; and fire prevention signing at campgrounds, rest areas, main road junctions, information centers and local businesses.**
5. **Maintain natural fuel loadings at a level which meets protection standards and resource objectives in a cost-efficient manner.**
6. Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.

7. Hazard reduction activities will be compatible with management area objectives.
8. ***Design fuel breaks to meet the natural characteristics of the area.***
9. ***Integrate fuel break construction with vegetation management projects.***
10. Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.
11. Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.



## TIMBER SUITABLE 2

This management strategy applies to extremely sensitive lands which require special management intensity to maintain long-term productive capability and achieve the goal described above. Normal timber management activities in management prescription 20 would severely reduce the long-term productivity of these lands. The landtypes from the Rogue River National Forest Soil Resource Inventory that this management prescription applies to are as follows:

[illegible]

The managed forest will eventually include timber stands which have a representation of all age classes up to rotation age with trees reaching a maximum diameter of approximately 18 inches at maturity. The results of management activities are evident in the form of roads, log landings, tree stumps, slash, thinned stands and regeneration units. Residual tree tops, limbs and unmerchantable stems from thinnings are present for short periods prior to slash treatment.

When conflicts exist between timber management and other resources, the conflict will be resolved in favor of the timber resource subject to rights under law and regulation.

This area does not include class I, II and III streams, and their associated riparian environments.

## **STANDARDS AND GUIDELINES**

### **RECREATION - ROADED MODIFIED**

1. ***Manage the area for Maximum Modification Visual Quality Objective. Blend and shape regeneration openings with the natural terrain to the extent possible.***
2. ***Assess the impacts to visual resources in all project environmental analysis. Specifically address how the visual quality objective will be met.***
3. ***Allow for dispersed recreation activities such as hunting, fishing and the gathering of forest products.***
4. ***Manage trails and dispersed occupancy sites in a manner not in conflict with timber management activities and timber resource values.***
5. Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.
6. ***Off-road vehicle recreation use allowed only on designated roads and trails.***
7. Rehabilitate deteriorated recreation use areas.
8. Protect Special Dispersed Features, including trails, from adverse impacts until management of the special dispersed feature is addressed in an environmental analysis. The environmental analysis shall propose alternative management practices and mitigation measures where appropriate.
9. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.
10. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
11. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
12. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
13. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.

14. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
15. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
16. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

## WILDERNESS

1. This element is not applicable under a timber management strategy.
2. Project plans will assure that Wilderness boundaries are not violated.

## WILDLIFE, FISH AND PLANTS

1. Permit wildlife and fish projects that do not conflict with timber management activities and timber resource values.
2. Existing and Proposed Endangered, Threatened and Sensitive Species

Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

3. Management practices for some selected species are as follows:

- (a) Northern Spotted Owl - Manage this species under the standards and guidelines established in the ROD to the Supplement to the Environmental Impact Statement for an amendment to the Pacific Northwest Regional Guide. In the event that a pair of northern spotted owls are found in an area not identified prior to September 1, 1981, consideration will be given to (1) the need to improve the distribution of older forest ecosystems for all associated plant and animal species; (2) providing insight into management of spotted owl habitat areas (SOHA) through experimental habitat manipulation. If a nesting pair of owls is found during a scheduled timber sale or other activity outside a SOHA, a biological assessment for sensitive species will be made and protective measures will be instituted to protect the nest site until after fledging.

- (b) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.

- (c) Goshawk - Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (d) Woodpeckers - (Cavity Nesters) Leave sufficient wildlife trees (hard snags or green trees designated to become snags) in coniferous forest lands to provide for at least 40 percent of the potential population levels for cavity nesting species. The distribution of numbers and size class necessary to meet 40 percent per 100 acres is as follows:

Siskiyou and Cascade Mixed Conifer

Size	Number
15+	119
17+	24
25+	2
Total	145

Siskiyou and Cascade True Fir

Size	Number
15+	95
17+	7
25+	2
Total	104

Species distribution should be representative of the site's original stand. Trees selected for retention should maximize use of the stand's cull component. If the proper number and size of trees do not exist in the stand to be treated, select the proper number from the next lower size class. (i.e. if 25" trees are not available go to 17" trees). Material that satisfies the need for down woody material recruitment will come from existing down material, down woody material that is the result of a silvicultural treatment and from the trees that are designated to meet standing wildlife tree requirements. The long-term goal for large woody material (LWM) is 10 to 20 pieces of class I and II logs per acre, and all existing class III, IV and V logs, except for incidental amounts removed dur-

ing management activities. Additional green merchantable trees will not be designated unless none of the other categories exist. The expected life span of snags or dead trees in mixed conifer working groups is 30 years and in true fir working groups the life span is 20 years. The silvicultural prescription will describe the total number, size and species of wildlife trees that will be required through the next full rotation of the stand being treated. Wildlife and down woody material requirement will be included as part of the vegetative (silvicultural) prescription for each stand. Information for the prescription will be provided by a wildlife biologist based on site by site needs. A certified silviculturist will validate the data and include it in the preparation of the final vegetative (silvicultural) prescription that implements all the interdisciplinary requirements. The logging system required, reforestation needs, slash disposal requirements and site preparation needs should be compatible with the wildlife tree distribution needs. Primary cavity excavator habitat will be met on areas no larger than 60 acres including adjacent harvest units. The objective is to provide well distributed habitat and allow adjacent stands to provide the needed wildlife trees for past harvest units where current standards were not met. Where past timber harvest activities created clearcuts, the acreage within a 900 foot "edge" adjacent to an uncut timber stand will be used to compute the number of wildlife trees needed to bring this common boundary "edge" area up to a minimum 20 percent potential population level for cavity-nesting species. Excess cull trees and snags in the adjacent uncut stand, (being managed at the 40 percent level), if available, can be applied to the number of wildlife trees needed in the "edge" area. If no culls or snags are available, green merchantable trees may be marked and managed for wildlife tree needs in this uncut area.

On existing large shelterwood areas it is assumed that natural mortality will occur to meet the 20 percent potential population levels needed as a minimum, however, if there are excess cull trees and snags in adjacent stands, they can be used to bring the biological potential up to 40 percent. The minimum 20 percent biological potential level will not be met for two or more decades on the area beyond the 900 foot "edge" on existing clearcut areas. By that time natural mortality will begin to occur in the new stands and sufficient trees will be managed for wildlife needs.

Selection of wildlife trees to make up for past deficits will meet the same selection criteria as in newly treated stands. Green merchantable trees will not be girdled to create wildlife snags, regardless of the situation, until 5-10 years after project completion (sale closure), in order to capture any mortality that may occur during that time. Adequacy of wildlife tree levels will be monitored as a part of the Forest Plan.

- (e) Deer and Elk - Maintain summer range to provide 20 percent forage, and at least 20 percent thermal cover for an area generally 500 to 1,000 acres. In addition, where consistent with the goal statement of this strategy, maintain 40 percent of each 500-1,000 acre area of non-critical deer and elk wintering area in a condition to provide for thermal cover. Timber harvesting and/or thinning should provide hiding and thermal cover between treatment areas and roads with continuous vehicle use. Hiding cover should be dense enough to hide 90 percent of deer or elk from view at 200 feet. Hiding cover need not be continuous but gaps between screens should not exceed one-quarter of a mile. A restricted operating period from April 1 to June 30 may be imposed in identified deer or elk fawning or calving areas.

- (f) **Bald Eagle** - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (g) **Peregrine Falcon** - Develop a Peregrine falcon site management plan for

each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

#### **RANGE**

##### **1. Permit livestock grazing on transitory ranges under the following situations:**

- (a) **Where forage occurs in natural stands or as a result of site disturbance and/or timber canopy removal on a periodic basis.**

- (b) *Where disturbed sites and/or areas under timber management can be seeded with species which improve forage production and does not restrict tree establishment and growth. (FSM 2521.02, RR Supplement #6, 2/73).*
- (c) *On forest plantations when livestock will not damage the young trees.*
- 2. Provide annual permittee plans for livestock distribution and use patterns. Where conflicts cannot be resolved or mitigated, relocation or removal of livestock will be considered.
- 3. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
- 4. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources and between agencies, permittees and other landowners.
- 5. *Develop structural and non-structural range improvements.*
- 6. *Allow increases in permitted grazing use to capture increases in transitory range caused by timber cutting where this is compatible with the timber management objectives.*
- 7. Prescribe kind and amount of grass seeding in silviculture prescriptions.
- 8. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utilization standards which are lower or rarely higher when associated with intensive grazing systems and specific vegetation management objectives which will meet resource management objectives and the intent of the management strategy. The standards include cumulative annual use by big game and livestock. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or twig length (e.g. utilization is 50 percent if 50 out of 100 leaders are browsed). Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory condition is anything not meeting satisfactory conditions. Allowable use of available forage (Maximum percent of annual utilization by big game and livestock) is:

## RANGE MANAGEMENT INTENSITY

	Minimum 1/	Extensive 2/	Intensive 3/
<b>Forested Areas</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Grasslands</b>			
-Satisfactory Condition	50%	55%	60%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Shrublands</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-25%	0-30%	0-35%

- 1/ Minimum - Minimum amount of improvements; simple grazing system.  
 2/ Extensive - Most or all improvements are non-structural; rotation grazing systems used.  
 3/ Wide variety of structural and non-structural improvements; rotation grazing systems used.

## TIMBER

1. When trees are cut for timber production objectives, the cutting shall be made in a way to assure that technology and knowledge exist to adequately restock the site within five years after final harvest (36 CFR 219.27(c)(3)).

2. Timber harvesting shall only occur on lands classified as suitable for timber production except for salvage sales, sales necessary to protect other multiple-use values or activities that meet other objectives if the Forest Plan establishes that such actions are appropriate (36 CFR 219.27(c)(1)).

3. The landscape will be predominated by a mosaic of even-aged managed timber stands although even and uneven aged management are accepted systems in this strategy. Silvicultural practices employed to accomplish management goals may include the following:

- (a) Site Preparation - chemical, mechanical, biological, manual and prescribed fire.
- (b) Tree improvement (genetics).
- (c) Reforestation by planting. Random natural seedlings will count towards reaching desired stocking level.

- (d) Growing stock protection from animals, insects and diseases.

- (e) Release and weeding - chemical, mechanical, biological, manual and prescribed fire.

- (f) Precommercial thinning.

- (g) Fertilization.

- (h) Commercial thinning.

- (i) Salvage mortality as necessary.

- (j) Final Harvest - silvicultural system using shelterwood, seed tree, clearcut or selection methods. Harvest system selection will be by the environmental analysis process and documented in site-specific silvicultural prescriptions.

(k) *Pruning*

4. **For regeneration and vegetation management treatments, logging unit size normally will not exceed 15 acres and no more than 30 percent of the sensitive area will be treated. Openings and percent of area treated will be distributed relative to the stability characteristics of the landscape. Adjacent stands in sensitive sites can be reentered when (1) minimum stocking for the site reaches 12 feet in height, or (2) 70 percent of ground is covered with trees and brush 12 feet or more in height. Devia-**



**tions will be supported with a fully documented environmental analysis.**

**5. For commercial intermediate treatments, stocking may be reduced to minimum stocking level for the site or 50 percent of existing level, whichever is greater. Deviations will be supported with a fully documented environmental analysis.**

**6. Precommercial stand maintenance and precommercial thinning are not subject to the limitations in (1) or (2) of 2 on next page.**

7. Rehabilitate and reconstruct developments and resources that have been impacted by timber sale activities if in keeping with the goals and objectives of this management strategy.

8. The logging system design for timber sales will be reviewed by logging systems specialists designated by the Forest Supervisor. Content review will be for feasibility, silvicultural compatibility and economics.

9. The even-aged silvicultural system will be the most commonly used system in coniferous forests. The uneven-aged silvicultural system may be used when healthy, fully stocked, uneven-aged stands exist or can be created by identified treatments within a defined time period. The selection of the appropriate silvicultural system will be guided by the following criteria:

- (a) Must permit the production of sufficient volume of marketable trees to permit utilization of all trees which meet utilization standards and are designated for harvest.
- (b) Must permit the use of an available and acceptable logging method.
- (c) Must be capable of providing special conditions when required by critical soil conditions or needed to achieve management objectives.
- (d) Must permit control of existing or potential vegetation to a degree that es-

tablishment of numbers of trees and rates of growth as identified in site-specific silvicultural prescriptions for harvest areas can be achieved.

(e) Must promote stand structure and species composition which avoids serious risk of damage from mammals, insects, disease or wildfire and will allow treatment of existing insect, disease or fuel conditions.

(f) Must meet resource and vegetation management objectives identified for this management area.

**10. Created openings will be separated by areas generally not classed as created openings. The areas between created openings shall contain one or more logical harvest units. These areas shall be large enough and contain a stand structure to meet resource requirements of the management area. The total area of created openings contiguous to 30 acre or larger natural openings should normally be limited to an area not exceeding one-third the size of the natural opening and not occupying more than one-third of the natural opening perimeter. Openings should not be created adjacent to any natural openings unless adequate vegetation along the edge can be developed or retained in sufficient density to protect wildlife values and visual management objectives. The determination of adequate vegetation will be made by an appropriate interdisciplinary team.**

**11. If possible, strive for a reasonably balanced acreage in each age class (i.e. 20 percent of each 500 to 1,000 acre area in stands 40 feet tall with 70 percent crown closure) to obtain biological diversity.**

12. Reforestation, precommercial thinning and release to meet recommended (full) stocking will be addressed with site-specific silvicultural prescriptions.

13. Set harvest treatment priorities by cut categories on each District so that the stands most needing treatment are done first, wherever reasonably possible.

14. Maintain a blend of tree species approximating natural stands. In seed collections, no seed lot shall be represented by fewer than 15 families of trees of that species, well distributed across the breeding zone. In addition, no family of parent trees shall represent greater than 20 percent of a seed lot. Although any given plantation may be planted to a single species, strive for a natural seed source from a variety of species.
15. Fuelwood and other miscellaneous forest products:
  - (a) Make miscellaneous forest products such as poles, posts, boughs, Christmas trees, house-logs, etc., available on an as-needed basis consistent with resource objectives of affected management areas.
  - (b) Provide access to potential fuelwood or bring the fuelwood to convenient points in timber sale or thinning areas through the utilization of appropriate timber sale clauses or the modification of fuels management prescriptions to meet this objective.
  - (c) Use commercial fuelwood contracts for slash disposal, thinning and site preparation.
  - (d) Open slash areas to fuelwood gathering prior to traditional disposal by on-site burning or other methods.
  - (e) Leave slash as a fuelwood source where there is no conflict with resource activity.
  - (f) Consider using the fuelwood program as a means to meet silvicultural objectives in appropriate areas, such as low productivity stands or other stands prior to reaching commercial size.
  - (g) Consider the season of year and access when implementing a fuelwood program. The public will be encouraged to burn dry wood.
  - (h) Document fuelwood availability for public uses in project environmental analysis.
  - (i) Be responsive to needs of public for fuelwood.
  - (j) Create a Forest fuelwood and miscellaneous products policy to include fuelwood inventory.
16. Utilization standards for timber harvested will meet the standards as stated in the Pacific Northwest Regional Guide, Standards and Guidelines 4-2 and in Table 3-6. Standards in timber sale contracts may vary depending on markets and costs of harvesting.

## UTILIZATION STANDARDS

Type Tree	Minimum dbh.	Minimum Top dib.
First Decade Existing mature trees, except lodgepole pine (first and future decades)	9	6
Existing commercial thinning size trees and lodgepole pine	7	4
Future Decades All species, except surviving stands of first decade existing mature.	7	4

## WATER

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.
2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.
- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.

- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.
- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between: 1) The Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and

Grazing Activities on Federal lands and 2) The State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.

3. The following requirements will be employed in project implementation when proposed projects may affect streams:
  - (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;
  - (b) Consider relation of project to riparian areas (all streams classed as I, II and III are allocated to Strategy 26);
  - (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
  - (d) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.
4. Acquire water rights for development of non-reserved uses.
5. Design project water monitoring as appropriate.
6. Allow for watershed restoration projects.
7. In-stream flows on National Forest lands should be protected through critical analysis of proposed water uses, diversion and transmission applications, and renewal of permits.
8. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.

## MINERALS

1. Develop and manage new and existing aggregate sources in compliance with approved Rock Resource Development Plan and an approved environmental analysis.
2. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
3. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
4. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.
5. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

## HUMAN AND COMMUNITY DEVELOPMENT

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.
3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exer-

cise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.

4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

## LANDS

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.
3. **Use control measures to prohibit livestock access to chemically treated corridors.**
4. Direct applications for electronic sites toward use of sites in the following order:
  - (a) Utilizing residual capacity of existing sites.
  - (b) Develop new sites identified in the Forest-wide Electronic Site Plan.
5. Insure that proposed projects do not have adverse effect on lands included in active exchanges.
6. Develop rights-of-ways as necessary to implement projects.
7. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.

8. Establish and maintain property boundaries on lands administered by the Forest Service.

## SOILS

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. No more than 10 percent of an activity area should be compacted, puddled or displaced upon completion of project (not including permanent roads or designed road landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices, including roads and landings. Permanent recreation facilities or other permanent facilities are exempt.
4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.
5. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory:
  - (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils.
  - (b) Thirty percent exposure on high or severe erosion hazard soils.
  - (c) Fifteen percent exposure on very high or very severe erosion hazard soils.

6. Rehabilitate adversely impacted sites.

## FACILITIES

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:

- (a) Road and Trail Design Elements
- (b) Road and Trail Design Standards
- (c) Road Maintenance Levels
- (d) Road and Trail Maintenance Plans
- (e) Road Traffic Management Strategies
- (f) Road Restriction Orders and Traffic Control Devices
- (g) Off-Road Vehicle Management Strategies
- (h) Travel Maps
- (i) Closure Orders

2. ***Geotechnical input is required for road location, design, and management.***

3. Temporary roads will be planned, located, surveyed, designed, constructed, and operated utilizing the same procedures for reviewing, decisions, selecting design elements and standards, and controlling construction, operation, and maintenance as are used for permanent transportation system roads.

4. ***Roads may be closed seasonally to prevent resource damage.***

5. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service. Vegetation shall be reestablished within one year.

6. ***Off-Road Vehicles will be restricted to:***

- (a) ***Trails on which the use will neither damage the trail nor the soils.***
- (b) ***Roads closed to highway vehicles on which ORV use will neither damage the road nor the soils.***

7. ***Over-snow vehicle use of roads is acceptable when sufficient snow is present to close roads to highway vehicles.***

## PROTECTION

1. Plan pest control alternatives to be biologically selective, cost beneficial and to have no irreversible adverse effect on the environment.

2. ***Aggressively*** suppress insects and diseases using the most cost-effective suppression strategies when outbreaks threaten resource management objectives. Includes stump treatment for root rots, application of pesticides for defoliators and cone insects, etc., as necessary.

3. ***Practice high intensity prevention activities such as monitoring pest populations to be forewarned of outbreaks, stump removal for root rots, stocking control, species selection for plantings, timely salvage of weather damaged timber, etc.***

4. ***Provide a moderate level of fire prevention activities consisting of: public contact through the use of media and personal contact at campgrounds and dispersed recreation areas; and fire prevention signing at campgrounds, rest areas, main road junctions, information centers and local businesses.***

5. ***Maintain natural fuel loadings at a level which meets protection standards and resource objectives in a cost-efficient manner.***

6. Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.

7. Hazard reduction activities will be compatible with management area objectives.
8. ***Design fuel breaks to meet the natural characteristics of the area.***
9. ***Integrate fuel break construction with vegetation management projects.***
10. Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.
11. Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.

## MANAGEMENT STRATEGY 22

### RESTRICTED WATERSHED

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#### GOAL

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Provide water for domestic supply. Land management activities will be largely restricted to watershed maintenance and protection.

#### DESCRIPTION

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This strategy can be applied only to those acres designated as suitable for Municipal Supply Watershed. These areas are Medford, Ashland and Talent watersheds.

The landscape will achieve a near natural condition over time, with the exception of roads, fuelbreaks and developments required to manage the watershed.

When conflicts exist between watershed management and other resources, the conflict will be resolved in the favor of the watershed resource, subject to rights under law and regulation.

#### STANDARDS AND GUIDELINES

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##### RECREATION - ROADED NATURAL TO SEMI-PRIMITIVE, NON-MOTORIZED

1. *Allow for dispersed recreation activities such as hunting, fishing and the gathering of forest products.*
2. *Prohibit overnight camping except in developed campgrounds.*
3. *Prohibit campfires except in developed campgrounds.*
4. *New developed recreation sites will not be constructed. Expansion of existing recreation sites will be analyzed in project environmental analysis.*

5. *Prohibit vehicle use off of roads except when associated with authorized use or for administrative needs approved by the District Ranger.*
6. *Areas within the watersheds receiving resource damage from recreation use or developments will be rehabilitated.*
7. *Manage the area for Partial Retention Visual Quality Objective except in developed recreation sites where the Visual Quality Objective is Modification. Assess the impacts to visual resources in all project environmental analysis. Specifically address how the visual quality objective will be met.*
8. Protect Special Dispersed Features, including trails, from adverse impacts until management of the special dispersed feature is addressed in an environmental analysis. The environmental analysis shall propose alternative management practices and mitigation measures where appropriate.
9. *Manage trails in a manner not in conflict with watershed management activities and watershed resource values.*
10. Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.
11. Rehabilitate deteriorated recreation use areas.
12. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.



13. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
14. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
15. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
16. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
17. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
18. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
19. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

#### **WILDERNESS**

1. This element is not applicable under a municipal supply watershed management strategy.

2. Project plans will assure that Wilderness boundaries are not violated.

#### **WILDLIFE, FISH AND PLANTS**

1. Permit wildlife projects that do not conflict with watershed management activities and watershed resource values.
2. Existing and Proposed Endangered, Threatened and Sensitive Species

Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

3. Management practices for some selected species are as follows:

- (a) Northern Spotted Owl - Manage this species under the standards and guidelines established in the ROD for the Supplement to the Environmental Impact Statement for an amendment to the Pacific Northwest Regional Guide. In the event that a pair of northern spotted owls are found in an area, consideration will be given to (1) the need to improve the distribution of older forest ecosystems for all associated plant and animal species; (2) providing insight into management of spotted owl habitat areas (SOHA) through experimental habitat manipulation. During the planning and scheduling phase of any project activity that may impact spotted owl habitat, conduct a biological evaluation in order to determine the degree of impact and to provide for protective measures.

- (b) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.
- (c) Goshawk - Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (d) Woodpeckers - (Cavity Nesters) Cavity nesting habitat will be allowed to occur at natural levels on coniferous forest lands. This should provide 100 percent of the potential population level for cavity nesting species.
- (e) Resident Trout and Steelhead - Water quality law establishes a level of aquatic resource management that will maintain the Forest's fisheries habitat at a level capable of sustaining or exceeding minimum viable populations for the various species of anadromous and resident fish. Cold water production for both on and off Forest fish needs is identified as a principal objec-

tive for the Forest's streams. Maintain existing fish habitat capability and develop fish habitat improvement projects to fully utilize potential smolt production capability of Forest anadromous streams and resident fish in other streams and lakes. Coordinate land management activities with the California Department of Fish and Game and Oregon Department of Fish and Wildlife objectives. Natural debris, plus trees needed for a future supply, will be maintained and managed to 1) enhance stream channel and bank structure so as to protect water quality, and 2) provide structural fish habitat to meet the objectives of small habitat capability or resident fish populations provided for in the Forest Plan.

- (f) Deer and Elk - Maintain summer range to provide forage, hiding and thermal cover. A restricted operating period from April 1 to June 30 may be imposed in identified deer or elk fawning or calving areas.
- (g) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August

15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (h) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special em-

phasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

## RANGE

1. ***Domestic livestock grazing will not be allowed.***
2. ***Construct fences as required to restrict grazing.***
3. ***Exclude grazing allotments from this area.***

## TIMBER

1. ***There is no scheduled or regulated timber harvest. Any timber harvest that does occur will be limited to that necessary to:***
  - (a) ***Provide watershed protection or enhance water quality.***
  - (b) ***Salvage catastrophic events such as fire, blowdown from windstorms or insect and disease epidemics.***
2. ***Harvest plans will include the following:***
  - (a) ***Silvicultural prescriptions approved by a certified silviculturist and reviewed by the District Ranger.***
  - (b) ***Logging system designs reviewed by logging systems specialists designated by the Forest Supervisor, including review for feasibility, silvicultural compatibility and economics.***

- (c) ***Provisions for rehabilitation and re-construction of developments and resources that have been impacted by timber sale activities.***

## 3. Fuelwood and other miscellaneous forest products:

- (a) Make miscellaneous forest products such as poles, posts, boughs, Christmas trees, house-logs, etc., available on an as-needed basis consistent with resource objectives of affected management areas.
- (b) Provide access to potential fuelwood or bring the fuelwood to convenient points.
- (c) Allow commercial fuelwood contracts for fuel reduction.
- (d) Consider the season of year and access when implementing a fuelwood program. The public will be encouraged to burn dry wood.
- (e) Document fuelwood availability for public uses in project environmental analysis.

4. Utilization standards for timber harvested will meet the standards as stated in the Pacific Northwest Regional Guide, Standards and Guidelines 4-2 and in Table 3-6. Standards in timber sale contracts may vary depending on markets and costs of harvesting.

## WATER

1. ***A qualified hydrologist will participate in the design of all projects.***
2. ***Rehabilitate degraded areas in the watershed.***
3. Evaluate effects of proposed projects on stream courses in all environmental analyses.
4. Comply with State requirements in accordance with the Clean Water Act of 1972, as

amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the State of Oregon the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.
- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.
- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.
- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in the Memorandum of Understanding between: 1) The Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attach-

ments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal lands) and 2) the State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.

- 5. The following requirements will be employed in project implementation when proposed projects may affect streams:
  - (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed.
  - (b) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists.
  - (c) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.
- 6. Acquire water rights for development of non-reserved uses.
- 7. Design project water monitoring as appropriate.
- 8. In-stream flows on National Forest System lands should be protected through critical analysis of proposed water uses, diversion and transmission applications, and renewal of permits.
- 9. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.
- 10. **Comply with the specific direction for management of each of the municipal water-**

***sheds as specified in management agreements between the U.S. Department of Agriculture or Forest and municipalities.***

## **MINERALS**

1. ***Prohibit development of aggregate sources.***
2. ***Prohibit expansion of existing aggregate sources.***
3. ***Rehabilitate aggregate sources as they are closed.***
4. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analysis.
5. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
6. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.
7. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

## **HUMAN AND COMMUNITY DEVELOPMENT**

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability

and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.

3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

## **LANDS**

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.
3. Direct applications for electronic sites toward use of sites in the following order:
  - (a) Utilizing residual capacity of existing sites.
  - (b) Developing new sites identified in the Forest-wide Electronic Site Plan.
4. Insure that proposed projects do not have adverse effect on lands included in active exchanges.
5. Develop rights-of-ways as necessary to implement projects.

6. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.
7. Establish and maintain property boundaries on lands administered by the Forest Service.

## SOILS

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. Prohibit more than 10 percent of an activity area to be compacted, puddled or displaced upon completion of project. A maximum of 20 percent can be displaced or compacted under circumstances resulting from previous management practices and/or unique topographic conditions. This 20 percent includes roads and landings built into roads. Permanent recreation facilities and other permanent facilities that operate on a seasonal basis are exempt.
4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.
5. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type as defined in the Rogue River National Forest Soil Resource Inventory:
  - (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils.
  - (b) Thirty percent exposure on high or severe erosion hazard soils.

- (c) Fifteen percent exposure on very high or very severe erosion hazard soils.

6. Rehabilitate adversely impacted sites.

## FACILITIES

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:
  - (a) Road and Trail Design Elements,
  - (b) Road and Trail Design Standards,
  - (c) Road Maintenance Levels,
  - (d) Road and Trail Maintenance Plans,
  - (e) Road Traffic Management Strategies,
  - (f) Road Restriction Orders and Traffic Control Devices,
  - (g) Off-Road Vehicle Management Strategies,
  - (h) Travel Maps and
  - (i) Closure Orders.
2. **Geotechnical input is required for road location, design, and management.**
3. Temporary roads will be planned, located, surveyed, designed, constructed, and operated utilizing the same procedures for reviewing, decisions, selecting design elements and standards, and controlling construction, operation, and maintenance as are used for permanent transportation system roads.
4. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service. Vegetation shall be reestablished within one year.

5. *Off-road recreation vehicles are not permitted. This prohibition includes both on-road and off-road use.*
6. *Roads will be closed by gates during periods of extreme fire danger and during winter (approximately November 15 to April 15).*
7. *Should facilities become necessary to support use of the area as a municipal watershed, an environmental analysis will be completed prior to project approval and design.*
8. *In areas where erosion and sedimentation is occurring from the traveled ways, constructed slopes, ditches, and culvert outlets of existing roads and trails, the facilities shall be stabilized to stop the erosion.*
9. *Landslide and bank slough materials will either be disposed of by layer placement in designated disposal areas or hauled out of the watershed.*
10. *Lignin-sulfonate and water are the only acceptable road dust palliatives for use within the watershed without environmental analysis.*
11. *Facilities for the collection, diversion, transmission and storage of domestic drinking water will be permitted as necessary.*
12. *Telephone, electric transmission, and gas transmission utilities will not be permitted, except when necessary in connection with permitted domestic water development facilities.*
13. *Waste disposal, including drainfields for subsurface sewage disposal, will not be permitted.*
14. *Helispots will be strategically located and constructed to provide rapid access in the event of fire.*

## PROTECTION

1. *Pesticides will not be used in these watersheds.*
2. *Pest control will be biologically selective, cost beneficial and have no irreversible adverse effect on the environment.*
3. *Protection of the watershed resource will be highest priority. Fires within or which threaten the watershed will receive an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.*
4. *On high intensity fires where suppression action is necessary, the use of heavy equipment to construct firelines could be allowed if it results in less total impact on the watershed. A resource advisor should be appointed in all such situations to advise the incident commander on the location and standard of equipment work.*
5. *Only retardants approved for use in Municipal Watersheds may be used in fire suppression efforts. The Forest Service will notify the respective city water departments of any planned use of retardant.*
6. *Maintain natural fuel loadings at a level which meets protection standards and resource objectives in a cost-efficient manner.*
7. *Use prescription fire to obtain desired fuel loadings.*
8. *Permit construction and maintenance of fuel breaks.*
9. *Provide a high level of fire prevention activities consisting of: public contact through the use of media, including the use of low watt AM radio stations providing information emphasizing fire prevention as a part of the overall message; high visibility prevention activities including signing and personal public contact at all campgrounds and dispersed recreation areas, rest areas, main road junctions, heavily*



***used public access points, information centers and local businesses.***

10. Hazard reduction activities will be compatible with management area objectives.
11. ***Design fuel breaks to meet the natural characteristics of the area.***

***12. Integrate fuel break construction with vegetation management projects.***

13. Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.

## MANAGEMENT STRATEGY 23

### MANAGED WATERSHED

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#### GOAL

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Provide water for domestic supply through a watershed management program which will harmonize present and foreseeable resource use with domestic water supply needs.

#### DESCRIPTION

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This strategy can be applied only to those acres designated for municipal supply or high value watersheds according to FSM 2543 R6 supplement #35. Land management activities within this allocation are based on continued production of high quality water.

This management strategy applies to sensitive watersheds which require special management intensity to maintain long-term water quality. The following activities are permissible under this management strategy:

1. Developed recreation
2. Dispersed recreation
3. Wildlife and fish management
4. Range management (except Ashland Watershed)
5. Timber management
6. Mineral development
7. Energy development (except in Medford Municipal Supply Watershed)

Evidence of these activities will be present.

The landscape will basically consist of a mosaic of even-aged managed timber stands which have a representation of all age classes up to rotation age with trees reaching a maximum diameter of approximately 18 inches at maturity.

When conflicts exist between watershed management and other resources, the conflict will be resolved in favor of the watershed resource, subject to rights under law and regulation.

This area does not include Riparian zones.

#### STANDARDS AND GUIDELINES

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##### RECREATION - ROADED MODIFIED

1. *Allow for dispersed recreation activities such as hunting, fishing and the gathering of forest products.*
2. *Manage trails and dispersed occupancy sites in a manner not in conflict with watershed management activities and watershed resource values.*
3. *Prohibit overnight camping within the Big Butte Springs Watershed except in developed campgrounds, or by permit.*
4. *New developed recreation sites will not be constructed. Expansion of existing recreation sites will be analyzed in project environmental analysis.*
5. *Off-road vehicle recreation use is allowed only on designated roads and trails when it would not conflict with watershed management objectives. Additional areas may be designated for snowmobile use if watershed values are not compromised.*
6. *Areas within the watersheds receiving resource damage from recreation use or developments will be rehabilitated.*
7. *Manage the area for Maximum Modification Visual Quality Objective. Blend and shape regeneration openings with the natural terrain to the extent possible. Assess the impacts to visual resources in all*

**project environmental analysis. Specifically address how the visual quality objective will be met.**

**8. Discourage or prohibit recreation use:**

**(a) Where public safety is threatened.**

**(b) Where this activity will threaten or damage resource values.**

9. Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.
10. Rehabilitate deteriorated recreation use areas.
11. Protect Special Dispersed Features, including trails, from adverse impacts until management of the special dispersed feature is addressed in an environmental analysis. The environmental analysis shall propose alternative management practices and mitigation measures where appropriate.
12. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.
13. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
14. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.

15. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
16. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
17. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
18. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
19. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

## WILDERNESS

1. This element is not applicable under a municipal watershed management strategy.
2. Project plans will assure that Wilderness boundaries are not violated.

## WILDLIFE, FISH AND PLANTS

1. **Special measures may be permitted to control disease-carrying wildlife to prevent contaminating water. Control measures will be coordinated with the Oregon Department of Fish and Wildlife and appropriate municipal authorities.**
2. Permit wildlife and fish projects that do not conflict with watershed management activities and water resource values.

3. ***Evaluate the effects of proposed projects on wildlife habitat in all environmental analysis. Discuss pertinent components of the habitat such as edge, migration routes, vegetation diversity and microclimate. Specify appropriate mitigation measures.***
4. Existing and Proposed Endangered, Threatened and Sensitive Species

Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and

Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

5. Management practices for some selected species are as follows:
  - (a) Northern Spotted Owl - Manage this species under the standards and guidelines established in the ROD for the Supplement to the Environmental Impact Statement for an amendment to the Pacific Northwest Regional Guide. In the event that a pair of northern spotted owls are found in an area, consideration will be given to (1) the need to improve the distribution of older forest ecosystems for all associated plant and animal species; (2) providing insight into management of spotted owl habitat areas (SOHA) through experimental habitat manipulation. During the planning and scheduling phase of any project activity that may impact spotted owl habitat, conduct a biological evaluation in order to determine the degree of impact and to provide for protective measures.
  - (b) Osprey - Protect active nests during the nesting season. Land management activities having adverse poten-

tial impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.

- (c) Goshawk - Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (d) Woodpeckers - (Cavity Nesters) Leave sufficient wildlife trees (hard snags or green trees designated to become snags) in coniferous forest lands to provide for at least 40 percent of the potential population levels for cavity nesting species. The distribution of numbers and size class necessary to meet 40 percent per 100 acres is as follows:

Siskiyou and Cascade Mixed Conifer

<u>Size</u>	<u>Number</u>
15+	119
17+	24
25+	<u>2</u>
Total	145

Siskiyou and Cascade True Fir

<u>Size</u>	<u>Number</u>
15+	95
17+	7
25+	<u>2</u>
Total	104

Species distribution should be representative of the site's original stand. Trees selected for retention should maximize use of the stand's cull component. If the proper number and size of trees do not exist in the stand to be treated, select the proper number from the next lower size class. (i.e. if 25" trees are not available go to 17" trees). Material that satisfies the need for down woody material recruitment will come from existing down material, down woody material that is the result of a silvicultural treatment and from the trees that are designated to meet standing wildlife tree requirements. The long-term goal for large woody material (LWM) is 10 to 20 pieces of class I and II logs per acre, and all existing class III, IV and V logs, except for incidental amounts removed during management activities. Additional green merchantable trees will not be designated unless none of the other categories exist. The expected life span of snags or dead trees in mixed conifer working groups is 30 years and in true fir working groups the life span is 20 years. The silvicultural prescription will describe the total number, size and species of wildlife trees that will be required through the next full rotation of the stand being treated. Wildlife and down woody material requirement will be included as part of the vegetative (silvicultural) prescription for each stand. Information for the prescription will be provided by a wildlife biologist based on site by site needs.

A certified silviculturist will validate the data and include it in the preparation of the final vegetative (silvicultural) prescription that implements all the interdisciplinary requirements. The logging system required, reforestation

needs, slash disposal requirements and site preparation needs should be compatible with the wildlife tree distribution needs. Primary cavity excavator habitat will be met on areas no larger than 60 acres including adjacent harvest units. The objective is to provide well distributed habitat and allow adjacent stands to provide the needed wildlife trees for past harvest units where current standards were not met. Where past timber harvest activities created clearcuts, the acreage within a 900 foot "edge" adjacent to an uncut timber stand will be used to compute the number of wildlife trees needed to bring this common boundary "edge" area up to a minimum 20 percent potential population level for cavity-nesting species. Excess cull trees and snags in the adjacent uncut stand, (being managed at the 40 percent level), if available, can be applied to the number of wildlife trees needed in the "edge" area. If no culls or snags are available, green merchantable trees may be marked and managed for wildlife tree needs in this uncut area.

On existing large shelterwood areas it is assumed that natural mortality will occur to meet the 20 percent potential population levels needed as a minimum, however, if there are excess cull trees and snags in adjacent stands, they can be used to bring the biological potential up to 40 percent. The minimum 20 percent biological potential level will not be met for two or more decades on the area beyond the 900 foot "edge" on existing clearcut areas. By that time natural mortality will begin to occur in the new stands and sufficient trees will be managed for wildlife needs.

Selection of wildlife trees to make up for past deficits will meet the same selection criteria as in newly treated stands. Green merchantable trees will not be girdled to create wildlife snags, regardless of the situation, until 5-10

years after project completion (sale closure), in order to capture any mortality that may occur during that time. Adequacy of wildlife tree levels will be monitored as a part of the Forest Plan.

- (e) Deer and Elk - Maintain summer range to provide 20 percent forage, and at least 20 percent thermal cover for an area generally 500 to 1,000 acres. In addition, where consistent with the goal statement of this strategy, retain 40 percent of each 500-1000 acre area of non-critical deer and elk wintering area in a condition to provide for thermal cover. Timber harvesting and/or thinning should provide hiding and thermal cover between treatment areas and roads with continuous vehicle use. Hiding cover should be dense enough to hide 90 percent of a deer or elk from view at 200 feet. Hiding cover need not be continuous but gaps between screens should not exceed one-quarter of a mile. A restricted operating period from April 1 to June 30 may be imposed in identified deer or elk fawning or calving areas.
- (f) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles. Timber cutting to enhance habitat is permitted but

there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (g) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other management techniques to maintain a mosaic of all vegetative seral stages

within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- 6. Natural debris, plus trees needed for a future supply, will be maintained and managed to:
  - (a) Maintain or enhance stream channel and bank structure so as to protect water quality.
  - (b) Provide structural fish habitat to meet the objective (smolt habitat capability or resident fish populations) provided for in the Forest Plan.

## RANGE

- 1. ***Permit grazing except in the Ashland Watershed. (The Ashland Watershed is restricted by the Secretary of Agriculture's Agreement of 1929.)***
- 2. ***Permit livestock grazing on transitory ranges under the following situations:***
  - (a) ***Where forage occurs in natural stands or as a result of site disturbance and/or timber canopy removal on a periodic basis.***
  - (b) ***Where disturbed sites and/or areas under timber management can be seeded with species which improve forage production and does not restrict tree establishment and growth. (FSM 2521.02, RR Supplement #6, 2/73).***

**(c) On forest plantations when livestock will not damage the young trees.**

3. Provide annual permittee plans for livestock distribution and use patterns. Where conflicts cannot be resolved or mitigated, relocation or removal of livestock will be considered.
4. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
5. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.
6. **Provide for fencing and other livestock control measures where grazing conflicts with watershed values. Maintain or enhance existing meadows for livestock forage.**
7. **Allow increases in permitted grazing use to capture increases in transitory range caused by timber cutting where this is**

**compatible with the timber management objectives.**

8. Prescribe kind and amount of grass seeding in silviculture prescriptions.
9. **Provide for protection of existing range improvements.**
10. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utilization standards which are lower or rarely higher when associated with intensive grazing systems and specific vegetation management objectives which will meet resource management objectives and the intent of the management strategy. The standards include cumulative annual use by big game and livestock. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or twig length (e.g. utilization is 50 percent if 50 out of 100 leaders are browsed). Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory condition is anything not meeting satisfactory conditions. Allowable use of available forage (Maximum percent of annual utilization by big game and livestock) is:



## RANGE MANAGEMENT INTENSITY

	Minimum 1/	Extensive 2/	Intensive 3/
<b>Forested Areas</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Grasslands</b>			
-Satisfactory Condition	50%	55%	60%
-Unsatisfactory Condition	0-30%	0-35%	0-40%
<b>Shrublands</b>			
-Satisfactory Condition	40%	45%	50%
-Unsatisfactory Condition	0-25%	0-30%	0-35%

- 1/ Minimum - Minimum amount of improvements; simple grazing system.  
 2/ Extensive - Most or all improvements are non-structural; rotation grazing systems used.  
 3/ Wide variety of structural and non-structural improvements; rotation grazing systems used.

## TIMBER

1. Timber harvest **consistent with water management objectives** will be scheduled. This is achieved through the following practices:

- (a) Site preparation - mechanical, biological, manual and prescribed fire.
- (b) Tree improvement (genetics).
- (c) Reforestation by planting. Random natural seedlings will count towards reaching desired stocking level.
- (d) Growing stock protection from animals, insects and diseases.
- (e) Release and weeding - mechanical, biological, manual and prescribed fire.
- (f) Precommercial thinning.
- (g) Commercial thinning.
- (h) Salvage mortality as necessary.
- (i) Final Harvest - even-aged silvicultural system using shelterwood, seed tree or clearcut methods. The shelterwood method will probably be the most com-

mon; however, selection will be determined by the environmental assessment process and documented in site-specific silvicultural prescriptions.

\* (i) *Pruning*

- 2. When trees are cut for timber production objectives, the cutting shall be made in a way to assure that technology and knowledge exist to adequately restock the site within five years after final harvest (36 CFR 219.27(c)(3)).
- 3. Timber harvesting shall only occur on lands classified as suitable for timber production except for salvage sales, sales necessary to protect other multiple-use values or activities that meet other objectives if the Forest Plan establishes that such actions are appropriate (36 CFR 219.27(c)(1)).
- 4. **Herbicides, pesticides or rodenticides will not be used in these watersheds. Fertilizers will not be used. Exceptions would be made only with agreement by the Water Commission or district receiving water from the watershed involved.**
- 5. Opening size and stocking levels need to be restricted on the sensitive land types shown in the following table:

[illegible]

- (a) Regeneration and vegetation management treatments, logging unit size normally will not exceed 15 acres and no more than 30 percent of the sensitive area will be treated. Openings and percent of area treated will be distributed relative to the stability characteristics of the landscape. Adjacent stands in sensitive sites can be reentered when (1) the minimum stocking for the site reaches 12 ft. in height, or (2) 70 percent of ground is covered with trees and brush 12 ft. or taller. Deviations will be supported with a fully documented environmental analysis. Precommercial stand maintenance and precommercial thinning is not subject to the limitations in 1) and 2).
  - (b) For commercial intermediate treatments, stocking may be reduced to minimum stocking level for the site or 50 percent of existing level, whichever is greater. Deviations will be supported with a fully documented environmental analysis.
6. Opening size limitations for other land types not shown above are as follows:
- (a) Forest openings created by the application of even-aged silviculture shall be limited to a maximum size of 60 acres in the Douglas-fir type and to a maximum size of 40 acres on all other lands of the Forest. Exceptions are permitted in the following cases: 1) When natural catastrophic situations such as fires, windstorms, or insect and disease attacks occur; 2) On an individual case basis after 60-day public notice and review by the Regional Forester.

- (b) When any one of the criteria described below is met and will produce a more desirable combination of benefits, the limits may be exceeded by not more than 50 percent without review by the Regional Forester or 60-day public notice: 1) When larger created openings will reduce the disturbance to soil, water, fish or riparian resources, and residual vegetation by: (a) allowing economically feasible logging systems that reduce landing and road construction; or (b) locating roads away from unstable soils, and (c) by reducing soil and vegetation disturbance from dragging logs; 2) Where groups of dwarf mistletoe or root rot disease infected trees need to be incorporated into the created opening to avoid infection of susceptible conifer reproduction and their inclusion cannot be achieved by centering the created opening over the area of infection; 3) Where visual quality objectives require shaping and blending of openings to fit landform; 4) Where larger units are needed to achieve silviculture objectives in existing areas of regeneration cutting by the shelterwood method and where destruction of the newly-created stand of reproduction would occur as a result of delayed removal of shelter trees. This exception applies only to existing shelterwood units and shelterwood units under contract prior to approval of Forest Plan.
  - (c) Created openings will be separated by areas generally not classed as created openings. The areas between created openings shall contain one or more logical harvest units. These areas shall be large enough and contain a stand structure to meet resource requirements of the management area. The total area of created openings contiguous to 30 acre or larger natural openings should normally be limited to an area not exceeding 1/3 the size of the natural opening and not occupying more than 1/3 of the natural opening perimeter. Openings should not be created adjacent to any natural openings unless adequate vegetation along the edge can be developed or retained in sufficient density to protect wildlife values and visual management objectives. The determination of adequate vegetation will be made by an appropriate interdisciplinary team.
  - (d) A harvested area of commercial forest will no longer be considered a created opening for silvicultural purposes when stocking surveys carried out in accordance with Regional instructions indicate prescribed crop tree stocking at or above 4.5 feet in height and free to grow.
7. Rehabilitate and reconstruct developments and resources that have been impacted by timber sale activities.
  8. Reforestation, precommercial thinning and release to meet recommended stocking will be addressed with site-specific silvicultural prescriptions.
  9. The logging system design for timber sales will be reviewed by logging systems specialists designated by the Forest Supervisor. Review for feasibility, silvicultural compatibility and economics.
  10. The even-aged silvicultural system will be the most commonly used system in coniferous forests. The uneven-aged silvicultural system may be used when healthy, fully stocked, uneven-aged stands exist or can be created by identified treatments within a defined time period. The selection of the appropriate silvicultural system will be guided by the following criteria:
    - (a) Must permit the production of sufficient volume of marketable trees to permit utilization of all trees which meet utilization standards and are designated for harvest.
    - (b) Must permit the use of an available and acceptable logging method.
    - (c) Must be capable of providing special conditions when required by critical

- soil conditions or needed to achieve management objectives.
- (d) Must permit control of existing or potential vegetation to a degree that establishment of numbers of trees and rates of growth as identified in site-specific silvicultural prescriptions for harvest areas can be achieved.
  - (e) Must promote stand structure and species composition which avoids serious risk of damage from mammals, insects, disease or wildfire and will allow treatment of existing insect, disease or fuel conditions.
  - (f) Must meet resource and vegetation management objectives.
11. Set harvest treatment priorities by cut categories on each District so that the stands most needing treatment are done first, wherever reasonably possible.
  12. Maintain a blend of tree species approximating natural stands. In seed collections, no seed lot shall be represented by fewer than 15 families of trees of that species, well distributed across the breeding zone. In addition, no family of parent trees shall represent greater than 20 percent of a seed lot. Although any given plantation may be planted to a single species, strive for a natural seed source from a variety of species.
  13. Fuelwood and other miscellaneous forest products are available during the first 100 years of stand development as follows:
    - (a) Make miscellaneous forest products such as poles, posts, boughs, Christmas trees, house-logs, etc., available on an as-needed basis consistent with the resource objectives of this management area.
    - (b) Provide access to potential fuelwood when appropriate. Bring fuelwood to convenient points in timber sale or thinning areas. Utilize appropriate timber sale clauses or modify fuels management prescriptions to meet this objective.
  14. If possible, strive for a reasonably balanced acreage in each age class (i.e. 20 percent of each 500 to 1,000 acre area in stands 40 feet tall with 70 percent crown closure) to obtain biological diversity.
  15. Utilization standards for timber harvested will meet the standards as stated in the Pacific Northwest Regional Guide, Standards and Guidelines 4-2 and in Table 3-6. Standards in timber sale contracts may vary depending on markets and costs of harvesting.
- (c) Allow commercial fuelwood contracts for slash disposal, thinning and site preparation.
  - (d) Open slash areas to fuelwood gathering prior to traditional disposal methods.
  - (e) Leave slash as a fuelwood source where there is no conflict with resource activity.
  - (f) Consider using the fuelwood program as a means to meet silvicultural objectives in appropriate areas, such as low productivity stands or other stands prior to reaching commercial size.
  - (g) Consider the season of year and access when implementing a fuelwood program. The public will be encouraged to burn dry wood.
  - (h) Document fuelwood availability for public uses in project environmental analysis.
  - (i) Be responsive to the needs of the public for fuelwood.
  - (j) Create a Forest fuelwood and miscellaneous products policy to include fuelwood inventory.

## UTILIZATION STANDARDS

Type Tree	Minimum dbh.	Minimum Top dib.
First Decade Existing mature trees, except lodgepole pine (first and future decades)	9	6
Existing commercial thinning size trees and lodgepole pine	7	4
Future Decades All species, except surviving stands of first decade existing mature.	7	4

## WATER

1. ***All ground disturbing projects will be designed and evaluated with assistance from a hydrologist and soil scientist, and if stability is a problem, a geologist.***
2. ***Rehabilitate all degraded areas in the watershed.***
3. ***Evaluate effects of proposed projects on stream courses in all environmental analyses.***
4. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the State of Oregon, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.

- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.
- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.
- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between: 1) The Oregon Department of Environmental Quality and U.S. De-

partment of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal lands).

5. The following requirements will be employed in project implementation when proposed projects may affect streams:
  - (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;
  - (b) Consider relation of project to riparian areas (all streams classed as I, II and III are allocated to Strategy 26);
  - (c) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
  - (d) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.
6. Acquire water rights for development of non-reserved uses.
7. **Require use of chemical or vault toilets at all project sites.**
8. **Prohibit draining oil and grease on the ground within this management area.**
9. **Notify the appropriate city officials of all planned management activities.**
10. In-stream flows on National Forest lands should be protected through critical analysis of proposed water uses, diversion and transmission applications, and renewal of permits.
11. Insure that proposed projects have no adverse effects on snow survey sites included

in the Regional Forester's memorandum of understanding with the Soil Conservation Service.

12. **Comply with specific direction for management of each of the municipal watersheds as specified in management agreements between the U.S. Department of Agriculture or Forest and municipalities.**

## MINERALS

1. Develop and manage new and existing aggregate sources in compliance with approved Rock Resource Development Plan and an approved environmental analysis.
2. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
3. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
4. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.
5. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

## HUMAN AND COMMUNITY DEVELOPMENT

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.

2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.
3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

#### LANDS

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.
3. Direct applications for electronic sites toward use of sites in the following order:
  - (a) Utilizing residual capacity of existing sites.
  - (b) Developing new sites identified in the Forest-wide Electronic Site Plan.
4. Insure that proposed projects do not have adverse effects on lands included in active exchanges.
5. Develop rights-of-ways as necessary to implement projects.

6. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.
7. Establish and maintain property boundaries on lands administered by the Forest Service.

#### SOILS

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. No more than 10 percent of an activity area should be compacted, puddled or displaced upon completion of project (not including permanent roads or landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices, including roads and landings. Permanent recreation facilities or other permanent facilities are exempt.
4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.
5. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory:
  - (a) Forty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils.
  - (b) Thirty percent exposure on high or severe erosion hazard soils.

- (c) Fifteen percent exposure on very high or very severe erosion hazard soils.

6. Rehabilitate adversely impacted sites.

## FACILITIES

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:

- (a) Road and Trail Design Elements,
- (b) Road and Trail Design Standards,
- (c) Road Maintenance Levels,
- (d) Road and Trail Maintenance Plans,
- (e) Road Traffic Management Strategies,
- (f) Road Restriction Orders and Traffic Control Devices,
- (g) Off-Road Vehicle Management Strategies,
- (h) Travel Maps and
- (i) Closure Orders.

2. Within sensitive soil resource inventory land types as shown in Management Strategy 21, the following guidelines apply:

- (a) Geotechnical input is required for road location, design, and management.
- (b) Temporary roads will be planned, located, surveyed, designed, constructed, and operated utilizing the same procedures for reviewing, decisions, selecting design elements and standards, and controlling construction, operation, and maintenance as are used for permanent transportation system roads.

- (c) Roads which access or traverse these land types may be closed seasonally to prevent resource damage.

3. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service. Vegetation shall be reestablished within one year.

4. ***Recreation vehicles are permitted on designated roads and trails only.***

5. ***In areas where erosion and sedimentation is occurring from the traveled ways, constructed slopes, ditches, and culvert outlets of existing roads and trails, the facilities shall be stabilized to stop the erosion.***

6. ***Landslide and bank slough materials will either be disposed of by layer placement in designated disposal areas or hauled out of the watershed.***

7. ***Lignin-sulfonate and water are the only acceptable road dust palliatives for use within the watershed without environmental analysis.***

8. ***Facilities for the collection, diversion, transmission and storage of domestic drinking water will be permitted as necessary, subject to the construction, operation, and maintenance of said facilities meeting minimum management requirements.***

9. ***Waste disposal, including drainfields for subsurface sewage disposal, will not be permitted. Vault toilets are permitted.***

10. ***Helispots will be strategically located and constructed to provide rapid access in the event of fire.***

## PROTECTION

1. ***Pest control will be biologically selective, cost beneficial and have no irreversible adverse effect on the environment.***

2. ***Protection of the watershed resource will be highest priority. Fires within or which***



*threaten the watershed will receive an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan.*

3. *On high intensity fires where suppression action is necessary, the use of heavy equipment to construct firelines could be allowed if it results in less total impact on the watershed. A resource advisor should be appointed in all such situations to advise the incident commander on the location and standard of equipment work.*
4. *Only retardants approved for use in Municipal Watersheds may be used in fire suppression efforts. The Forest Service will notify the respective city water departments of any planned use of retardant.*
5. *Maintain fuel loadings at a level that will not support high intensity wildfire.*
6. *Use prescription fire to obtain desired fuel loadings.*
7. *Permit construction and maintenance of fuel breaks.*
8. *Provide a high level of fire prevention activities consisting of: public contact through the use of media, including the use of low watt AM radio stations providing information emphasizing fire prevention as a part of the overall message; high visibility prevention activities including signing and personal public contact at all campgrounds and dispersed recreation areas, rest areas, main road junctions, heavily used public access points, information centers and local businesses.*
9. *Hazard reduction activities will be compatible with management area objectives.*
10. *Design fuel breaks to meet the natural characteristics of the area.*
11. *Integrate fuel break construction with vegetation management projects.*
12. *Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.*

## RESEARCH NATURAL AREAS

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### GOAL

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To provide areas for research, observation and study of undisturbed ecosystems. Maintenance of natural processes within each area will be the prime consideration.

### DESCRIPTION

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The landscape will consist of naturally established patterns of vegetation. Areas will be protected to preserve the natural features for scientific purposes and natural processes allowed to dominate. The main purposes of Research Natural Areas are to provide: (1) Baseline areas against which effects of human activities can be measured; (2) Sites for study of natural processes in undisturbed ecosystems; and (3) Gene pool preserves for all types of organisms.

Management activities must be approved by the appropriate Director of the Forest and Range Experiment Stations.

When conflicts exist between Research Natural Areas and other resources, the conflict will be resolved in favor of the Research Natural Area, subject to rights under law, regulation and policy.

### STANDARDS AND GUIDELINES

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#### RECREATION - ROADED NATURAL TO SEMI-PRIMITIVE, NON-MOTORIZED

1. *Physical improvements for recreation purposes such as campgrounds or buildings are not permitted.*
2. *Manage the area for Preservation Visual Quality Objective.*
3. *Discourage dispersed recreation activities such as hunting and fishing, and prohibit the gathering of forest products.*

4. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.
5. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
6. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
7. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
8. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
9. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.

10. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
11. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.
12. ***Off-road vehicle recreation use is prohibited.***

## WILDERNESS

1. ***Any Research Natural Area established within a Wilderness will be managed to wilderness standards and requirements. Whenever any conflicts occur, they will be resolved in favor of wilderness values.***
2. Project plans will assure that wilderness boundaries are not violated.

## WILDLIFE, FISH AND PLANTS

1. Existing and Proposed Endangered, Threatened and Sensitive Species

Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will

have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or proposed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

2. Management practices for some selected species are as follows:

- (a) Northern Spotted Owl - Manage this species under the standards and guidelines established in the ROD for the Supplement to the Environmental

Impact Statement for an amendment to the Pacific Northwest Regional Guide. In the event that a pair of northern spotted owls are found in an area, consideration will be given to (1) the need to improve the distribution of older forest ecosystems for all associated plant and animal species; (2) providing insight into management of spotted owl habitat areas (SOHA) through experimental habitat manipulation. During the planning and scheduling phase of any project activity that may impact spotted owl habitat, conduct a biological evaluation in order to determine the degree of impact and to provide for protective measures.

- (b) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees will be protected until they are no longer usable.
- (c) Goshawk - Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (d) Woodpeckers - (Cavity Nesters) No management activities will take place that will change natural population levels on coniferous forest land. This should provide for 100 percent of the potential population level for cavity nesting species.
- (e) Resident Trout and Steelhead - Allow populations to occur at natural levels. Coordinate land management activities with the California Department of Fish and Game and Oregon Department of Fish and Wildlife objectives. Natural debris, plus trees needed for a future supply, will be maintained and managed to 1) enhance stream channel and bank structure so as to protect water quality, and 2) provide structural fish habitat to meet the objectives of small habitat capability or resident fish populations provided for in the Forest Plan.
- (f) Deer and Elk - This management will not impact natural population levels of deer and elk.
- (g) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which adversely affect eagles; 3) Primary and Secondary Zones between January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber

harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (h) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. Include the following: 1) Delineate the nest site (eyrie); 2) Define primary (nesting), secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the home range.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- 3. Control excessive animal populations where these populations would threaten the preservation of some representation of vegetation for which the area is established.

- 4. Natural debris will be maintained and managed to:

- (a) Maintain or enhance stream channel and bank structure so as to protect water quality.
- (b) Provide structural fish habitat to meet the objective (smolt habitat capability or resident fish populations) provided for in the Forest Plan.

#### RANGE

- 1. ***Grazing may be allowed when the Director of the Forest and Range Experiment Station authorizes such a management practice as essential to maintain a specific vegetation type.***
- 2. ***Where Research Natural Areas are located adjacent to or within grazing allotments, the boundaries will be marked and physical barriers constructed around the area to prohibit livestock entry, if needed.***
- 3. Write range allotment plans to reflect management direction for all lands within the allotment boundary. Allotment planning procedures are documented in FSM 2210.
- 4. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.

#### TIMBER

- 1. ***Timber harvesting is not allowed in a Research Natural Area.***
- 2. ***Firewood cutting is not permitted.***

#### WATER

- 1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and

recommend changes where appropriate in the environmental analysis.

2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.
- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.
- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.

- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between: 1) The Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal lands) and 2) The State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.

3. Acquire water rights for development of non-reserved uses.
4. In-stream flows on National Forest lands should be protected through critical analysis of proposed water uses, diversion and transmission applications, and renewal of permits.
5. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.
6. ***Comply with the specific direction for management of each of the municipal watersheds as specified in management agreements between the U.S. Department of Agriculture or Forest and municipalities.***

#### MINERALS

1. ***Recommend withdrawal of the area from mineral entry.***
2. ***Provide for exploration, development and production of energy resources subject to applicable regulation. All operating plans must be approved by the Director of the Forest and Range Experiment Station.***

3. **Prohibit aggregate source development.**
4. **Rehabilitate aggregate sources as they are closed.**
5. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
6. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
7. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.
8. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation costs and formulated using technical and other resource input.

#### **HUMAN AND COMMUNITY DEVELOPMENT**

1. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
2. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.

#### **LANDS**

1. **Utility corridors are not compatible with this management area.**
2. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
3. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.
4. Establish and maintain property boundaries on lands administered by the Forest Service.

#### **SOILS**

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. **Implement soil improvement or rehabilitation projects only with the approval of the Director of the Forest and Range Experiment Station.**
4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.

#### **FACILITIES**

**No roads, trails or other facilities will be permitted within these areas except those considered essential by the Director of the Forest and Range Experiment Station.**

## PROTECTION

1. *Suppress pest outbreaks if needed to meet Research Natural Area objectives. Biological methods are preferred.*
2. *Monitor pests that may threaten immediate and adjacent areas.*
3. *Authorize practices to control insects and disease with approval of the Director of the Forest and Range Experiment Station.*
4. *Prohibit prescribed fire unless approved by the Director of the Forest and Range Experiment Station.*
5. *Fuels will be managed to meet the intent of the objectives of the NRA. Fuel treatment methods will be approved by the Director*

*of the Forest and Range Experiment Station.*

6. *Each wildfire will have an appropriate response in accordance with the Rogue River National Forest Fire Management Policy and Plan. High impact methods will be used only to prevent a total loss of the Research Natural Area (FSM 4063.45).*
7. *Provide a low level of prevention activities limited primarily to public contact through patrol and fire prevention signing at campgrounds, rest areas, main access road junctions and information centers.*
8. *Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.*



## MANAGEMENT STRATEGY 26

### RESTRICTED RIPARIAN

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#### GOAL

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Protect the unique riparian habitats associated with perennial streams for wildlife, fishery and other beneficial uses.

Protect perennial streams from detrimental changes in water temperature, blockages of water courses and deposits of sediment.

#### DESCRIPTION

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This strategy can be applied only to those acres designated as suitable for riparian habitat.

This area includes all perennial streams, Class I, II and III in the Forest Service classification system and their associated riparian habitat.

Areas managed for restricted riparian include lakes and perennial streams and wetlands, and at a minimum, land within 100 feet horizontal distance from them or the riparian vegetation associated with them. Geographical boundaries of these areas are determined by on-site characteristics of soil and vegetation.

Wetlands are important for maintenance of the riparian resource on the Forest. Wetlands are areas of saturated or seasonally saturated soils and plants requiring such conditions for growth and reproduction. These areas are typically wet meadows, marshy land and wet alder glades. These areas provide a continuous supply of cool water to Forest streams.

Intermittent streams (Class IV) are recognized for their importance to the fishery resource as a provider of seasonal habitat and water. Protection of these streams is provided for in all other strategies (see WATER section in these strategies).

When conflicts exist between restricted riparian and other resources, the conflict will be resolved in favor of the riparian resource, subject to rights under law and regulation.

#### STANDARDS AND GUIDELINES

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##### RECREATION - ROADED NATURAL

1. ***Manage the area for Retention Visual Quality Objective. Blend and shape regeneration openings with the natural terrain to the extent possible. Assess the impacts to visual resources in all project environmental analysis. Specifically address how the visual quality objective will be met.***
2. Protect Special Dispersed Features, including trails, from adverse impacts until management of the special dispersed feature is addressed in an environmental analysis. The environmental analysis shall propose alternative management practices and mitigation measures where appropriate.
3. ***Allow for dispersed recreation activities such as dispersed camping, hunting, fishing and the gathering of forest products.***
4. ***Manage trails and dispersed occupancy sites in a manner not in conflict with fisheries resource values.***
5. ***Discourage or prohibit recreation use where public safety is threatened.***
6. Identify the potential effect of any proposed activity on recreation opportunity spectrum classes in all project environmental analysis.
7. ***Restrict vehicle use to roads and trails except where prohibited.***

8. **Prohibit new developed recreation sites.**
9. **Portions of riparian areas suffering resource damage from recreation use will be rehabilitated and may be closed.**
10. Investigate area to inventory archaeological, historical or other cultural resource properties which may be located within the proposed "area of effect" of projects or elsewhere. Document results of the investigation/ inventory in the project environmental analysis. Inventory of non-project areas will be guided by the Forest's cultural resource inventory strategy.
11. Evaluate the cultural resources found within the area using a qualified cultural resource specialist, to determine their potential archaeological, historical or cultural significance. Evaluate cultural resources on a project-specific basis or by thematic/multi-resource group. If a cultural resource is discovered after project activity has begun, the activity will cease or be modified until an evaluation of significance can be made.
12. Assess the impacts of a proposed action to determine the effect of the project upon potentially or known significant cultural resources.
13. Mitigate potential adverse impacts to significant cultural resources by redesigning the project to avoid damage or disturbance, or implementing appropriate mitigation procedures to reduce the adverse impact to the resource.
14. Inventory and protect cultural resources to insure that values are not damaged or destroyed until they can be evaluated for scientific study, interpretation or other appropriate uses. Protection of values may include maintenance of structures, avoidance of the site, or scientific removal, analysis and reporting.
15. Evaluate and enhance cultural resources for scientific, educational, recreational and ethnic use to the extent the integrity of the resource is maintained. Use will be carefully monitored.
16. Develop and administer schedules for long-range cultural resource management. Coordinate cultural resource management with appropriate State and Federal agencies.
17. Properties that meet the significance criteria will be treated as eligible to the National Register of Historic Places; eligible properties will be nominated to the National Register.

## WILDERNESS

1. This element is not applicable under a riparian strategy.
2. Project plans will assure that Wilderness boundaries are not violated.

## WILDLIFE, FISH AND PLANTS

1. Permit fish projects that enhance the resource values.
2. **Resident Trout and Steelhead are selected species. The Clean Water Act establishes a level of aquatic resource management that will maintain the Forest's fisheries habitat at a level capable of sustaining or exceeding minimum viable populations for the various species of anadromous and resident fish. Cold water production for both on and off Forest fish needs is identified as a principal objective for the Forest's streams. Maintain existing fish habitat capability and develop fish habitat improvement projects to utilize fully potential smolt production capability of Forest anadromous streams and resident fish in other streams and lakes. Coordinate land management activities with the California Department of Fish and Game and Oregon Department of Fish and Wildlife objectives. Protect streams and lakes from detrimental changes in water temperature, blockages of water courses and deposits of sediment. Natural debris, plus trees needed for a future supply, will be maintained and managed to 1) enhance stream channel and bank structure so as to protect water quality, and 2) provide structural fish habitat to meet the objectives of small habitat capa-**

**bility or resident fish populations provided for in the Forest Plan.**

3. Existing and Proposed Endangered, Threatened and Sensitive Species

Endangered, threatened and sensitive species (and species proposed for Federal listing by USDA Fish and Wildlife Service [PETS]) will be identified and managed in cooperation with the USDI Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Natural Heritage Database, and California Department of Fish and Game.

Legal and biological requirements for the conservation of listed and proposed endangered, threatened and sensitive plant and animal species shall be met. Habitat for existing federally-listed species shall be managed to achieve objectives of recovery plans.

Biological evaluations (FSM 2672.4) shall be prepared for each project authorized, funded or conducted on the Forest. The biological evaluation shall be used to determine the possible effects the proposed activity will have on listed and PETS species. The biological evaluation consists of five steps:

- (a) Pre-field review of existing information;
- (b) Field reconnaissance of the project area;
- (c) Determination of whether local populations of listed and PETS species will be affected by a project;
- (d) Analysis of the significance of project effects on local and total populations of listed and PETS species;
- (e) When step four cannot be completed due to lack of information, a biological or botanical investigation is conducted to gather the information needed to complete step four.

If endangered, threatened or proposed species are found in a project area, consultation requirements with the USDI Fish and Wildlife Service shall be met in accordance with the Endangered Species Act (Public Law 93-205) and FSM 2671.4. No adverse impacts on endangered, threatened or pro-

posed species or their habitats shall occur except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the USDI Fish and Wildlife Service (FSM 2670.31). Before a project can be carried out, protection or mitigation requirements shall be specified (NFMA, 36 CFR 219.27(a)(8)).

If sensitive species are found in a project area, avoidance or other mitigation to minimize impacts to local populations shall be used for those species whose viability has been identified as a concern (FSM 2670.32). Maintaining viable populations of species throughout their geographic range (FSM 2670.22) shall be an objective during project planning. At a minimum, no action shall result in loss of species viability or create significant trends toward Federal listing (FSM 2670.32).

4. Management practices for some selected species are as follows:

- (a) Northern Spotted Owl - Manage this species under the standards and guidelines established in the ROD for the Supplement to the Environmental Impact Statement for an amendment to the Pacific Northwest Regional Guide. In the event that a pair of northern spotted owls are found in an area, consideration will be given to (1) the need to improve the distribution of older forest ecosystems for all associated plant and animal species; (2) providing insight into management of spotted owl habitat areas (SOHA) through experimental habitat manipulation. During the planning and scheduling phase of any project activity that may impact spotted owl habitat, conduct a biological evaluation in order to determine the degree of impact and to provide for protective measures.
- (b) Osprey - Protect active nests during the nesting season. Land management activities having adverse potential impact should not occur within a 20-chain radius of the nest from March 1 to August 31. Nest and perch trees

will be protected until they are no longer usable.

- (c) Goshawk - Nest sites will be protected from disturbing human activities during the nesting season. To maintain the physical suitability of nesting areas and prevent disturbances that may cause nesting failures, the period of protection will be from March 1 to August 31 for the area within 20 chains of an active nest.

Each nest site is assumed potentially active until June 1. If monitoring has shown that no nesting attempt has been initiated or that a nesting attempt has failed by June 1, the nest site will be considered inactive and the above nest site restriction may be waived. Monitoring will be supervised and evaluated by a qualified wildlife biologist.

Goshawk nests will be protected within a 25-acre no-harvest buffer of trees unless other adjacent alternate buffers are available in a logical basis to maintain habitat over time.

- (d) Woodpeckers - (Cavity Nesters) Leave sufficient wildlife trees (hard snags or green trees designated to become snags) in coniferous forest lands to provide for at least 100 percent of the potential population levels for cavity nesting species. The distribution of numbers and size class necessary to meet 100 percent per 100 acres is as follows:

Siskiyou and Cascade Mixed Conifer

Size	Number
15+	298
17+	60
25+	5
Total	363

Siskiyou and Cascade True Fir

Size	Number
15+	238
17+	18
25+	5
Total	261

Species distribution should be representative of the site's original stand. Trees selected for retention should

maximize use of the stand's cull component. If the proper number and size of trees do not exist in the stand to be treated, select the proper number from the next lower size class (i.e. if 25" trees are not available go to 17" trees). Material that satisfies the need for down woody material recruitment will come from existing down material, down woody material that is the result of a silvicultural treatment and from the trees that are designated to meet standing wildlife tree requirements. The long-term goal for large woody material (LWM) is 10 to 20 pieces of class I and II logs per acre, and all existing class III, IV and V logs, except for incidental amounts removed during management activities. Additional green merchantable trees will not be designated unless none of the other categories exist. The expected life span of snags or dead trees in mixed conifer working groups is 30 years and in true fir working groups the life span is 20 years. The silvicultural prescription will describe the total number, size and species of wildlife trees that will be required through the next full rotation of the stand being treated. Wildlife and down woody material requirement will be included as part of the vegetative (silvicultural) prescription for each stand. Information for the prescription will be provided by a wildlife biologist based on site by site needs. A certified silviculturist will validate the data and include it in the preparation of the final vegetative (silvicultural) prescription that implements all the interdisciplinary requirements. The logging system required, reforestation needs, slash disposal requirements and site preparation needs should be compatible with the wildlife tree distribution needs. Primary cavity excavator habitat will be met on areas no larger than 60 acres including adjacent existing harvest units. The objective is to provide well distributed habitat, and to allow adjacent stands to provide the needed wildlife trees for past harvest units

where current standards were not met. Where past harvest units were very large, the adjacent stands within 900 feet will be managed at higher wildlife tree levels to bring the overall area to at least the 40 percent level. When the past harvest units were of such magnitude that the above methods cannot bring the entire area to 40 percent level, the remaining shortage will not be provided for, but will be tracked for the purpose of monitoring the forest plan. Selection of wildlife trees to make up for past deficits will meet the same selection criteria as in newly treated stands. Green merchantable trees will not be girdled to create wildlife snags, regardless of the situation, until (5-7) years after project completion (sale closure), in order to capture any mortality that may occur during that time. Operational accomplishment will be included as a monitoring item in the forest plan.

- (e) Deer and Elk - Maintain deer and elk summer range to provide forage, hiding and thermal cover. A restricted operating period from April 1 to June 30 may be imposed in identified deer or elk fawning or calving areas.
- (f) Bald Eagle - Develop a bald eagle site management plan for each nesting or roosting area as it is discovered. Until a site specific management plan is developed, the following measures will apply. Establish the primary nesting zone to be a 330 foot radius around the nest and the secondary zone to be a 660 foot radius around the nest. The following activities should not occur within the nesting zones and communal roosting sites: 1) Primary Zone - All human related activities unless the activities pre-existed to nest discovery and the eagles are apparently tolerant; 2) Secondary Zone - Major land uses such as development of commercial and industrial sites, home, road, powerline or other construction, oil drilling, surface mining, and spraying of chemicals which

adversely affect eagles. Timber cutting to enhance habitat is permitted but there is no scheduled timber harvest; 3) Primary and Secondary Zones between January 1 and August 15 - blasting, use of firearms, camping, picnicking, timber harvest, road and water access into the nesting territory, and low level aircraft operations with helicopters no closer than 1,000 feet and with fixed wing no closer than 500 feet; 4) A communal roost is any stand of trees in which eagles regularly roost together. The primary zone for roosting eagles is 330 feet from the roosting trees and the secondary zone is one-quarter of a mile from the roosting trees. Large trees used as solitary roosts should be left along shoreline of lakes and streams wherever possible.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

- (g) Peregrine Falcon - Develop a Peregrine falcon site management plan for each nesting area found. The site plan design will be tailored to fit the landscape and the use patterns established by the birds. The following may be included in the Plan: 1) Delineate the nest site (eyrie); 2) Define primary (nesting) and secondary and tertiary zones associated with the eyrie; 3) Withdraw the nest site from mineral entry; 4) Restrict management activities and recreational use to September through January; 5) Allow no structural developments within the primary zone unless it benefits the species; 6) Maintain and/or enhance riparian habitats within a three-mile radius of the eyrie; 7) Develop water sources (springs, seeps, ponds, catchments) within approximately one-half mile radius of the eyrie; 8) Implement silvicultural prescriptions, prescribed fire or other

management techniques to maintain a mosaic of all vegetative seral stages within the secondary and tertiary zones (approximately a three-mile radius of the eyrie); 9) Direct special emphasis towards maintaining and/or enhancing mast- and berry-producing shrubs and trees which support jays, bandtail pigeon and other passerine birds.

Biological evaluation and informal consultation with the U.S Fish and Wildlife Service will be conducted for all potentially disturbing activities proposed within one mile of all nesting and roosting areas, within potential habitat, or as called for within site-specific management plans.

## RANGE

1. Livestock grazing will be permitted but will be managed to meet the goal of protecting the productivity of habitat values in riparian areas.
2. Protecting and enhancing riparian area values will be addressed in each Allotment Management Plan as it is revised and/or updated. Specific objectives will be determined for riparian areas within grazing allotments. A measurable desired future riparian condition will be established based upon existing and potential vegetation conditions. When the current riparian condition is less than that desired, grazing systems and associated structural improvements will be designed and implemented to meet those objectives. Measurable objectives will be set for key parameters such as streambank stability, sedimentation, and vegetation condition. The

Allotment Management Plan will describe the monitoring needed to determine if the desired rate of improvement is occurring.

3. Allotment Management Plans currently not meeting Forest Plan direction will be revised on a priority basis under a schedule established by the Forest Supervisor.
4. **Prohibit salting within the management area.**
5. Develop Coordinated Resource Management Plans where possible and feasible to facilitate the integrated resource management of range and other resources, and between agencies, permittees and other landowners.
6. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utilization standards which are lower or rarely higher when associated with intensive grazing systems and specific vegetation management objectives which will meet resource management objectives and the intent of the management strategy. The standards include cumulative annual use by big game and livestock. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or twig length (e.g. utilization is 50 percent if 50 out of 100 leaders are browsed). Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory condition is anything not meeting satisfactory conditions. Allowable use of available forage on riparian areas (Maximum percent of annual utilization by big game and livestock) is:

## RANGE MANAGEMENT INTENSITY

	Minimum 1/	Extensive 2/	Intensive 3/
<b>Grass &amp; Grass-like Species</b> on areas in Satisfactory Condition Unsatisfactory Condition	40% 0-30%	45% 0-35%	50% 0-40%
<b>Shrub Species on Areas in</b> Satisfactory Condition Unsatisfactory Condition	30% 0-25%	40% 0-30%	50% 0-35%

1/ Minimum - Minimum amount of improvements; simple grazing system.

2/ Extensive - Most or all improvements are non-structural; rotation grazing systems used.

3/ Wide variety of structural and non-structural improvements; rotation grazing systems used.

## TIMBER

1. *Timber harvest is not programmed and would normally not occur except for the following situations: to eliminate hazards, removal incidental to construction or maintenance of improvements, minor unavoidable inclusions to logical management units, or in the case of natural catastrophe, when removal of such timber is not detrimental to achieving the goals of the management area.*
2. *Maintain vegetation characteristics needed for fish habitat and water quality protection.*
  - (a) *For areas normally dominated by trees, at least 80 percent of the normal tree crown cover will be retained over the length of the stream in the project area. The 80 percent figure was established to allow cross-stream logging where logical. The intent of this is to cause less disturbance to watersheds by eliminating roads.*
  - (b) *An exception can be made for catastrophes. When shading vegetation along a stream is removed and cre-*

*ates an opening, recovery will be considered sufficient when the shade is reestablished. In all cases water temperatures must be maintained at acceptable levels.*

3. Maintain a blend of tree species approximating natural stands. In seed collections, no seed lot shall be represented by fewer than 15 families of trees from that species, well distributed across the breeding zone. In addition, no family of parent trees shall represent greater than 20 percent of a seed lot. Although any given plantation may be planted to a single species, strive for a natural seed source from a variety of species.
4. Fuelwood and other miscellaneous forest products will be available only when consistent with riparian habitat management objectives.
5. Rehabilitate and reconstruct developments and resources that have been impacted by timber sale activities.
6. Utilization standards for timber harvested will meet the standards as stated in the Pacific Northwest Regional Guide, Standards and Guidelines 4-2 and in Table 3-6. Standards in timber sale contracts may vary depending on markets and costs of harvesting.

**WATER**

1. Evaluate effects of proposed projects on stream courses in all environmental analysis. Discuss pertinent stream classification and recommend changes where appropriate as a result of the environmental analysis.
2. Comply with State requirements in accordance with the Clean Water Act of 1972, as amended (1977 and 1987), for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of California (Porter-Cologne Water Quality Control Act, Division 7) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act of 1972, as amended (1977 and 1987), regulations, and federal guidance issued thereto.

In cooperation with the States of Oregon and California, the Forest will use the following process:

- (a) Select and design BMPs based on site specific conditions, technical, economic, and institutional feasibility, and water quality standards for those waters potentially impacted.
- (b) Implement and enforce BMPs.
- (c) Monitor to insure that practices are correctly applied as designed.
- (d) Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
- (e) Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
- (f) Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protec-

tion of beneficial uses. Consider recommending adjustment of water quality standards.

- (g) Use the existing agreed to process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memorandums of Understanding between: 1) the Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal lands) and 2) the State Water Resources Control Board, State of California, and U.S. Department of Agriculture Forest Service, Pacific Southwest Region, 1981.
3. The following requirements will be employed in project implementation when proposed projects may affect streams:
  - (a) Determine restricted distance from streams for equipment operation, type of stream crossing, if crossing is needed, and erosion control methods, if needed;
  - (b) Locate springs that may be affected and evaluate for appropriate levels of protection. This would usually require consultation with soil, water or geology specialists;
  - (c) In project planning, consider basin constraint percentages by subwatershed as identified in the monitoring plan for watersheds.
4. Acquire water rights for development of non-reserved uses.
5. Allow watershed improvement projects. However, those which involve removal of debris from streams will normally be restricted to removal of man-caused debris only.



6. Design project water monitoring as appropriate.
7. In-stream flows on National Forest System lands should be protected through critical analysis of proposed water uses, diversion and transmission applications, and renewal of permits.
8. Insure that proposed projects have no adverse effects on snow survey sites included in the Regional Forester's memorandum of understanding with the Soil Conservation Service.

#### MINERALS

1. **Prohibit development of new, permanent aggregate sources.**
2. **Prohibit expansion of existing aggregate sources.**
3. **Rehabilitate aggregate sources as they are closed.**
4. Under mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analyses.
5. Operating plans for mining operations will be processed in a timely manner in accordance with 36 CFR 228.
6. In plans of operation, require operationally feasible provisions designed to: protect riparian and fishery values; meet State water quality standards; and insure that disturbed areas are reclaimed insofar as practicable to a productive condition.
7. Reclamation plans will identify management objectives for disturbed areas and detail the procedures and time frames necessary to accomplish the objectives. Reclamation bonds will be based on actual reclamation

costs and formulated using technical and other resource input.

#### HUMAN AND COMMUNITY DEVELOPMENT

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, and established Forest Service standards.
2. Inform the general public, including minorities and the underprivileged, of availability and benefits which they are eligible to receive from Forest programs. Techniques to increase awareness and participation will be used.
3. As directed by the American Indian Religious Freedom Act, the Forest will protect and preserve for Native Americans their inherent right of freedom to believe, express and exercise their traditional religions on Forest lands. This includes, but is not limited to, access to ceremonial sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.
4. Identify opportunities for the Forest to coordinate resource activities compatible with interests of surrounding Indian tribes.
5. Identify opportunities for the Forest to coordinate resource activities with the interest of adjacent communities.

#### LANDS

1. Revise all special use permits to be consistent with the direction in this management strategy when renewed.
2. Utilize residual capacity in existing utility corridors when applications for rights-of-ways from public or private entities are received. Analyze any additional corridors with an environmental analysis.
3. Insure that proposed projects do not have adverse effect on lands included in active exchanges.

4. Proposed projects are responsible for distinguishing boundaries between management areas with differing management objectives.
5. Develop rights-of-way as necessary to implement projects.
6. Establish and maintain property boundaries.

- (b) Ten percent exposure on high or severe erosion hazard soils.
- (c) Seven percent exposure on very high or very severe erosion hazard soils.

6. Rehabilitate adversely impacted sites.

## SOILS

1. Address the potential for detrimental soil displacement, compaction, puddling, severe burning, mass wasting and surface soil erosion in project environmental analysis.
2. Alternative management practices will be developed or mitigating measures planned and implemented when activities are likely to result in detrimental displacement, compaction, mass wasting or erosion.
3. No more than 10 percent of an activity area should be compacted, puddled or displaced upon completion of project (not including permanent roads or landings). No more than 20 percent of the area should be displaced or compacted under circumstances resulting from previous management practices, including roads and landings. Permanent recreation facilities or other permanent facilities are exempt.
4. Landslide hazard evaluation will be used to assess potential mass wasting risk by the project. The Rogue River National Forest landslide, slope stability and hazard rating maps will be used to determine need for detailed slope stability mapping.
5. Design management activities to retain effective ground cover. The mineral soil exposure should not exceed the following limits overall, based on the erosion hazard rating of the soil type, as defined in the Rogue River National Forest Soil Resource Inventory:
  - (a) Twenty percent mineral soil exposed on soils classed as very slight, slight, low or moderate erosion hazard soils.

## FACILITIES

1. The Access Management Objectives Process, as described in Forest Service Handbook 7709.55, will be used to develop Road Design, Road Operation, Road Maintenance, and Off-Road Travel Criteria. These in turn will be used to develop:
  - (a) Road and Trail Design Elements,
  - (b) Road and Trail Design Standards,
  - (c) Road Maintenance Levels,
  - (d) Road and Trail Maintenance Plans,
  - (e) Road Traffic Management Strategies,
  - (f) Road Restriction Orders and Traffic Control Devices,
  - (g) Off-Road Vehicle Management Strategies,
  - (h) Travel Maps, and
  - (i) Closure Orders.
2. Geotechnical input is required for road location, design, and management.
3. Temporary roads will be planned, located, surveyed, designed, constructed, and operated utilizing the same procedures for reviewing, decisions, selecting design elements and standards, and controlling construction, operation, and maintenance as are used for permanent transportation system roads.
4. Roads may be closed seasonally to prevent resource damage.

5. Roads that are no longer needed shall be obliterated and properly drained when they are taken out of service. Vegetation shall be reestablished within one year.
6. **Off-Road Vehicles will be restricted to:**
  - (a) **Trails on which the use will neither damage the trail nor the soils.**
  - (b) **Roads closed to highway vehicles on which ORV use will neither damage the road nor the soils.**
7. **Over snow vehicle use of roads is acceptable when sufficient snow is present to close roads to highway vehicles.**
8. **Where existing roads or trails are adversely impacting water quality, steps will be taken to mitigate the problem.**
9. **Prohibit pit toilets, vault toilets, sewage disposal of any kind, and waste disposal of any kind within this management area.**
10. **Helispots and transmission corridors should be located outside this management area.**

## PROTECTION

1. Suppress pests when outbreaks threaten managed resources and/or users. Use methods that minimize site disturbance.
2. Plan pest control alternatives to be biologically selective, cost beneficial and have no irreversible adverse effect on the environment.
3. **Permit the use of heavy equipment to construct firelines if it results in less total impact on the environment. A resource advi-**

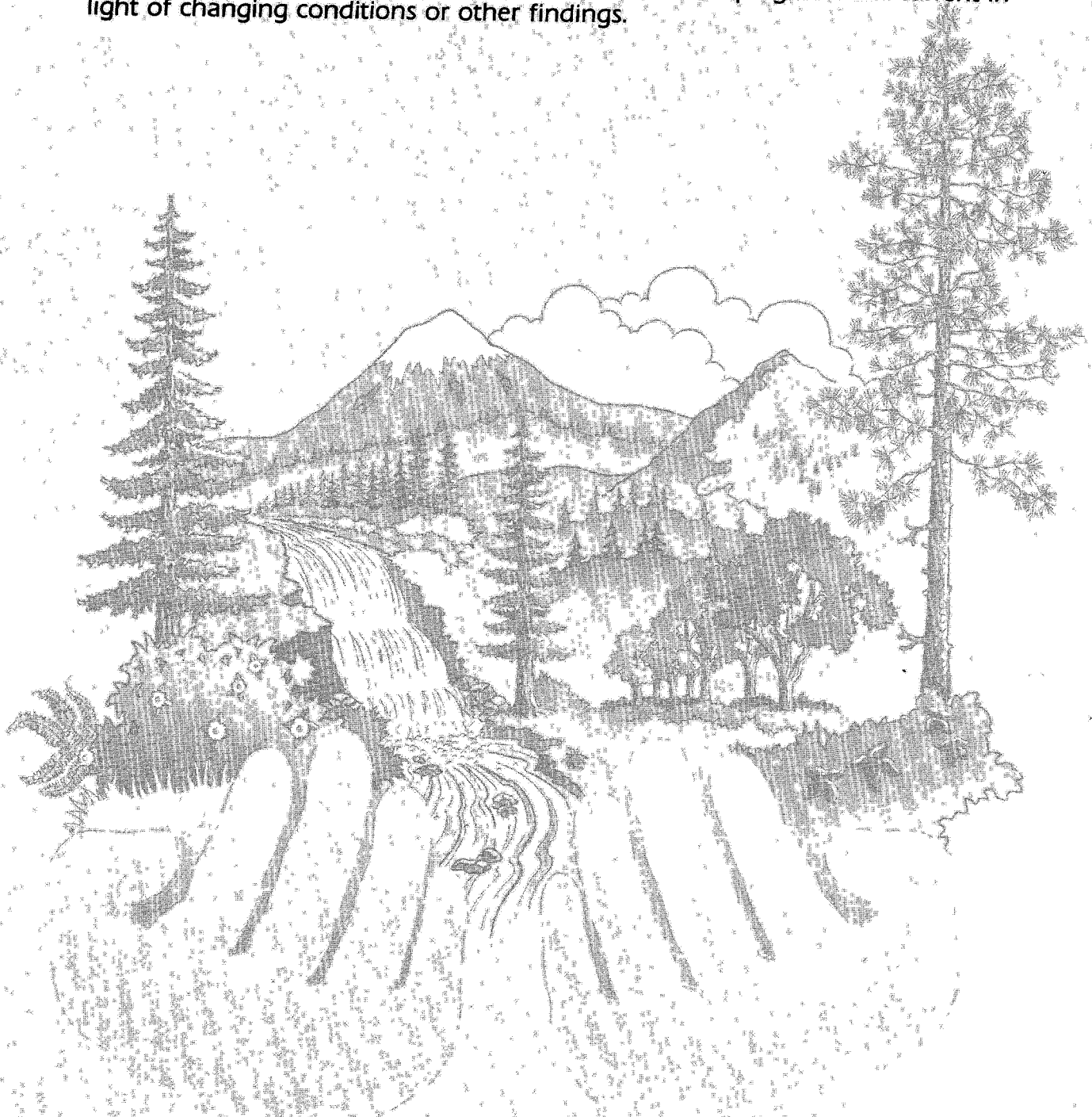
**sor should be appointed in all such situations to advise the incident commander on the location and standard of equipment work, and rehabilitation techniques.**

4. **Provide a moderate level of fire prevention activities consisting of: public contact through the use of media and personal contact at campgrounds and dispersed recreation areas; and fire prevention signing at campgrounds, rest areas, main road junctions, information centers and local businesses.**
5. Treat activity fuels to a level which meets protection standards and resource objectives in a cost-efficient manner.
6. Hazard reduction activities will be compatible with management area objectives.
7. Use prescription fire to obtain the desired ecological characteristics of the area.
8. **Provide for a protective strip of undisturbed surface between the prescribed burn area and specified water courses, considering local topographic, vegetative and soil characteristics.**
9. **Avoid high intensity prescribed fires on soils that are highly erodible and/or are subject to the development of hydrophobic (non-wettable) conditions.**
10. **Construction and maintenance of fuel breaks will be permitted provided low impact methods such as hand tools are used.**
11. Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act, Oregon Smoke Management Plan and the Rogue River National Forest Smoke Management Plan.

## CHAPTER FIVE

# Implementation of the Forest Plan

This chapter incorporates direction in three sections under the headings of Implementation Direction, Monitoring and Evaluation Program, and Amendment. Collectively, these sections explain methods of implementing management direction, monitoring and evaluating implementation activities, and of keeping the Plan current in light of changing conditions or other findings.



## CHAPTER 5

# IMPLEMENTATION OF THE FOREST PLAN

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### INTRODUCTION

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When used in conjunction with Forest Service Manuals, Handbooks, and the Pacific Northwest Regional Guide, the Land and Resource Management Plan (Forest Plan) establishes direction for management of the Rogue River National Forest for the next 10 to 15 years. This chapter describes how the Forest Plan is to be put into practice. Direction is provided under the headings of Implementation Direction, Monitoring and Evaluation Process, and Amendment and Revision. Collectively, this chapter outlines a process for implementing management direction, for monitoring and evaluating implementation activities, and for keeping the plan current, given changing conditions and necessary adjustments that are certain to occur in the future.

### IMPLEMENTATION DIRECTION

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Implementation is achieved through the identification, selection, and scheduling of activities (projects) and execution of management practices, to meet management direction provided in the Forest Plan. Implementation also involves responding to proposals by others for use or occupancy of National Forest System lands.

To make the transition from the Forest Plan to implementation on the ground, a firm understanding of the Forest Plan decision making process and the activity planning purpose is necessary. The Forest Plan embodies the provisions and implementing regulations (36 CFR 219) of the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA) as amended by the National Forest Management Act of 1976 (NFMA) and other guiding documents. Land use allocations and associated Management Strategies, including Standards and Guidelines, are statements of management direc-

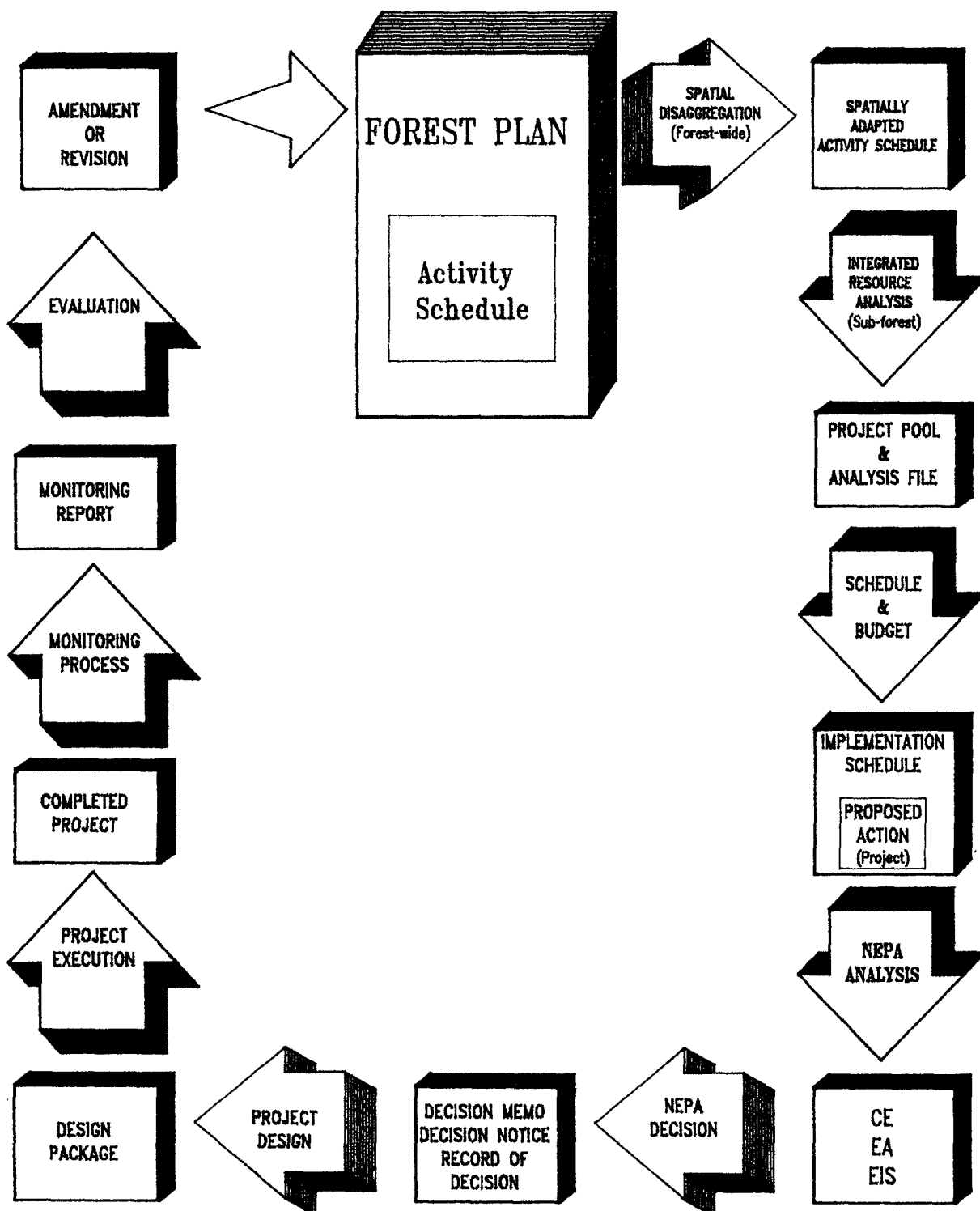
tion in the Forest Plan. Activity outputs, services, and rates of implementation are dependent on the annual budgeting process and the actual capability of the land to produce, given assigned allocations and associated strategies.

Implementation involves varying degrees of site-specific inventory, evaluation and analysis, disclosure through NEPA documents, and decisions to implement or defer implementation of proposed management activities.

Figure 5-1 graphically displays a flow chart of Forest Plan implementation. This chart displays a logical sequence of actions (arrows) and associated products (boxes) for accomplishing Forest Plan implementation.

Appendix A, Ten-Year Activity Schedules, lists tentative activities for many resources over a ten-year period, e.g., watershed improvement projects, timber sales, developed recreation, etc. To move from this suggested tentative list in the Forest Plan to proposed site-specific actions, additional analysis and the refinement of scheduling is needed. This can be accomplished through the steps displayed in Figure 5-1. The first step, spatial disaggregation, is a Forest-wide disaggregation of the activity schedules to specific areas (locators) on the Forest. This results in a set of activities for separate geographic areas of the Forest. A second step, integrated resource analysis, is necessary to fully integrate all the resource activities, identify any other opportunities, and ensure compatibility. The potential for other related actions and cumulative impacts may also be considered for a portion of the Forest. A completed pool of possible activities and an analysis file are the result of this stage of Forest Plan implementation. Following integrated resource analysis, a third step, involving sequencing, scheduling and budgeting, is needed to bring actions to the proposal stage.

Figure 5-1  
FLOW CHART OF FOREST PLAN IMPLEMENTATION



The disaggregation, analysis, and scheduling processes are not NEPA actions. These represent management exercises which help in establishing priorities, refining management direction, and developing future budget requirements. The extent and detail of these processes will vary considerably, depending on site-specific issues to be addressed.

Based on the activity schedules and the analysis discussed above, proposed actions (projects) will be identified. The NEPA analysis and disclosure requirements of project planning are begun at this stage. One or more proposals may be addressed in a single Categorical Exclusion, Environmental Assessment, or Environmental Impact Statement, e.g., if the proposals represent connected or cumulative actions. The disclosure (NEPA) document must address the findings of the analysis including direct, indirect, and cumulative effects. Information developed as part of the integrated resource analysis may be referenced or used in the NEPA documentation.

The flow chart in Figure 5-1 does not show the many information input and output arrows related to monitoring and evaluation, but these are ongoing processes and contribute to effective implementation. Monitoring and evaluation ensure that all the other steps of implementation are kept current and, in conjunction with the amendment process, maintain the Forest Plan as a dynamic document. Monitoring and evaluation will be explained in more detail later in this chapter.

### ACTIVITY SCHEDULING

Schedules of proposed activities (projects) for the first ten-year implementation period are contained in Appendix A of this document. These schedules display possible activities and relative time frames from which annual work programs are developed. Ten-year activity schedules are maintained by unit managers and staff. These lists will routinely change as projects are implemented or removed from the lists (for various reasons) and replaced with new

projects. Projects are scheduled in response to the management direction in the Plan, planned outputs and goods and services, near-term management needs and opportunities, and the annual budgeting process. Execution is in response to the approval of annual budget requests and project-specific NEPA documentation. If there is a conflict between Standards and Guidelines and program outputs, projects will be in full compliance with Standards and Guidelines set forth in this Forest Plan (Chief's direction, WO 1920, February 23, 1990).

### BUDGET PROPOSALS

Implementation of the Forest Plan is dependent upon a logical multi-year budgeting system that accurately and clearly displays financial needs and expected outputs. The program development and budgeting process is the system that links approved activities to annual budget requests. Information is communicated to the Washington Office annually in the Region's multi-year program budget proposal. After review by Forest Service officials, the Department of Agriculture, and the Office of Management and Budget, current year appropriations are made by Congress. These funds are allocated to the Region and distributed to Forests in response to Forest Plan activity schedules and program budget requests. Given approval of a final budget, the Forest finalizes and implements the annual program of work. Outputs and activities in individual years may be significantly different from those shown in Chapter 4 and 5, depending on final budgets.

The Projected Budget (Appendix B) developed in concert with the 10-Year Activity Schedules (Appendix A) are key elements of the implementation process. The proposals in Appendix B display the first three years and the aggregated costs of the 10-year implementation period. Annual budget proposals are displayed in a manner that allow comparison with historical and projected Forest Plan funding levels.

IMPLEMENTATION OF THE FOREST PLAN

Table 5-1

FOREST PLANNING DOCUMENTS TO BE REVIEWED, SUPERSEDED OR PREPARED

Plan or Agreement Title	Reviewed*	Superseded	Prepared
1978 Timber Resource Plan		X	
Forest and District Multiple Use Plans		X	
Interim Plan for Ashland Creek Watershed		X	
Big Butte Coordinated Resource Plan	X		
Summit Prairie Coordinated Resource Plan	X		
Beaver-Silver Coordinated Resource Plan	X		X
Range Allotment Plan(s)	X		X
Land Adjustment Plan			X
Scenic Corridor Plan(s)			X
Special Use Permits	X		
Memoranda of Understandings	X		
Cooperative Agreements	X		
Capital Investment Plan	X		
Recreation Area/Site Development Plan(s)	X		X
Facility Management/Development Plan(s)	X		X
Fire Management Plan(s)	X		X
Sky Lakes Wilderness Fire Management Plan			X
Red Buttes Wilderness Fire Management Plan			X
Rogue-Umpqua Divide Wilderness Fire Mgmt. Plan			X
Botanical Areas Plan(s)			X
Special Interest Area Management Plans			X
Law Enforcement Plan	X		
Wild and Scenic River Plan			X
Electronic/Communications Site Plan(s)	X		X
Access and Travel Management Plan			X
Trail Management Plan		X	
Off-Road Vehicle Management Plan		X	
Tree Improvement Plan	X		
Seed Orchard Management Plan	X		
Tree Seed Inventory Plan	X		
Dead Indian Recovery Plan	X		
Hazardous Materials Plan	X		
Flood Emergency Road Maintenance Plan	X		
Rogue/Boise Construction & Use Agreement	X		
Upper Elliott Cr Construction & Use Agreement	X		
Rogue/Medco Construction & Use Agreement	X		
Applegate Lake Management Plan	X		
Peregrine Falcon Eyrie Management Plan(s)			X
Bald Eagle Management Plan(s)			X

\* Revision to be made where needed to ensure consistency with direction in the Forest Plan.



## ENVIRONMENTAL ANALYSIS

Activities (projects) designed for implementation under the Forest Plan are subject to environmental analysis to assure compliance with the National Environmental Policy Act (NEPA). The form of documentation for such analysis is to be consistent with the Council of Environmental Quality Regulation (CFR 40 1500-1508). A NEPA document in the form of a Categorical Exclusion, Environmental Assessment, or Environmental Impact Statement will be prepared for each proposed action and in accordance with Forest Service Manual (FSM 1950) direction. Public participation is an integral part of the environmental analysis process. Regardless of the form of NEPA documentation, an analysis file will be maintained and available for public review.

## CONSISTENCY WITH OTHER INSTRUMENTS

The Forest Plan serves as the single land management plan for the Rogue River National Forest. All other land management plans are replaced by the direction in the Forest Plan. A list of those plans which need to be reviewed, superseded, or prepared as a result of this Forest Plan are shown in Table 5-1. Subject to valid existing rights, all outstanding and future permits, contracts, cooperative agreements, memoranda of understanding, and instruments of occupancy and use of the lands will be brought into agreement with the Forest Plan. This will be done as soon as possible and generally within three years of the date of approval of the Forest Plan.

## RECREATION

Issuance of new recreation special use permits or reissuing of existing annual recreation special use permits will be consistent with Forest Plan direction on the first issuance or reissuing date following Forest Plan approval.

Reissuing of existing term recreation special use permits will be consistent with the Forest Plan direction on the first reissuing date or the first proposed permit transfer date following Forest Plan approval.

## FISH AND WILDLIFE

Within two years of Forest Plan approval, habitat survey and improvement activity schedules will be prepared for the first five years of the implementation period.

## RANGE

Issuance of new term grazing permits or reissue of existing term grazing permits will be consistent with Forest Plan direction on the first issuing or reissuing date following Forest Plan approval.

At the time of new or reissue of existing term grazing permits, range allotment plans will be evaluated and brought into compliance with the Forest Plan.

## TIMBER

The schedule of timber sale offerings contained in Appendix A, will be updated at least annually. All timber sales offered for sale will be in compliance with Forest Plan direction. Timber sales under contract prior to issuance of the Forest Plan will be administered under provisions of existing contracts. Changes to existing timber sale contracts may be proposed on a case-by-case basis where overriding resource considerations are present.

All prescribed timber harvest treatments, reforestation, timber stand improvement, timber stand tending and related silvicultural activities will be in compliance with Forest Plan direction. Existing contracts for non-timber sale silviculture work, issued prior to Forest Plan approval, will continue to be administered under provisions of pre-existing contracts. Changes to pre-existing contracts may be made on a case-by-case basis when overriding resource considerations exist. Ongoing silvicultural work being accomplished by Forest Service employees will be brought into compliance with Forest Plan direction immediately upon its approval.

Functional timber plans, such as the Forest Tree Improvement Plan, will be brought into compliance with the Forest Plan within two (2) years of its approval. Updates to functional plans will be in compliance with direction in the Forest Plan.

## LANDS, SPECIAL USES, AND FACILITIES

The land adjustment program will be consistent with the Forest Plan when it is implemented. All future land ownership adjustment proposals will be evaluated for consistency with the Forest Plan as they are received and proposed.

Issuance of new non-recreational special use permits or reissuing of existing special use permits will be consistent with Forest Plan direction on the first issuance or reissuing date following approval of Forest Plan. Term permits will be consistent with plan direction on the first reissuing date or the first proposed permit transfer date following approval of Forest Plan.

All facilities management plans will be consistent with Forest Plan direction within one (1) year of approval of the Forest Plan.

## MINERALS

New minerals lease applications, permits, contracts, and operating plans will be evaluated for consistency with the Forest Plan as they are received or proposed. All existing permits and operating plans will be reviewed for consistency with Forest Plan Strategies, Standards, and Guidelines within one (1) year of approval of the Forest Plan. Operators and permittees will be notified of any necessary modifications. The circumstances under which an operating plan can be modified are detailed in 36 CRF 228.

Mineral materials sales now under contract will be administered under provisions of the existing contracts. Changes to these may be proposed on a case-by-case basis where over-riding protection considerations are present.

The Forest Service has no authority to modify stipulations attached to existing mineral leases.

## MONITORING AND EVALUATION

The purpose of monitoring and evaluation is to determine how well objectives have been met, how

closely management Standards and Guidelines have been applied, how effective Standards and Guidelines are in meeting Plan objectives, and to validate assumptions used in developing the Forest Plan. At periodic intervals (annually in most cases) the Forest will evaluate implementation activities to verify compliance with the Management Strategies, including Standards and Guidelines, established in Chapter 4 of the Forest Plan. Based on the evaluation of findings from the monitoring effort, the Forest shall initiate changes in management direction, revisions, or amendments to the Forest Plan as necessary.

Although the monitoring and evaluation process appears to come at the end of the flow chart of Forest Plan implementation (Figure 5-1), it is a part of all stages of implementation. Interactive links exist between monitoring and evaluation and all other stages of implementation.

Monitoring involves a periodic comparison between the end results that are realized and those projected in the Forest Plan. Costs, outputs, and environmental effects, both experienced and projected, are compared in order to judge the overall progress of Forest Plan implementation and the achievement of the desired future condition. When differences



occur, they will be evaluated as to their significance, and appropriate changes, revisions, or amendments will be considered and made in accordance with applicable NEPA and Forest Service procedures.

An annual report will be made by the Forest summarizing the monitoring and evaluation results. For some resource areas several years of monitoring will be necessary to establish trends and subsequently trigger needed changes.

Specific objectives of the monitoring and evaluation process are to determine if:

- Planned goals and objectives are achieved;
- Programs and activities address existing and emerging public issues and management concerns;
- Management Strategies, including Standards and Guidelines, are being followed;
- Management Standards and Guidelines effectively maintain environmental quality;
- Workforce, resources, and cost information used in projecting outputs and impacts are accurate;
- Activities on nearby lands managed by other agencies or landowners are affecting management of the Forest;
- Research, beyond that identified in Chapter 2 of the Forest Plan, is needed;
- The Forest Plan needs to be amended or revised; and
- Intensity of monitoring is commensurate with the risk, costs and values involved in meeting Forest Plan goals and objectives.

Table 5-2 displays the actions or effects to be measured in the monitoring and evaluation process of Forest Plan implementation. These items, methods and costs are the initial proposals for monitoring. The experience of implementation, undoubtedly, will reveal the need for further adjustments. A number of changes are expected to be made in the first

several years of implementation. For each monitoring element, worksheets have been developed with more information under the following headings: Resource Element, Issue, Forest Goal, Desired Future Condition and Outputs, Management Area, Risk Assessment, Monitoring Questions, Monitoring Purpose, Threshold of Concern, Suggested Sampling Methods, Expected Precision and Reliability, Responsibility, and Annual Monitoring Cost. These are available in the Planning Records.

## MONITORING

Components of the monitoring and evaluation process are as follows:

Resource Area - The functional area in which the monitoring and evaluation activity will occur;

Action or Effect - The action or effect to be monitored and evaluated;

Unit of Measure - The item to be measured (e.g., acres, cost, sites, miles, etc.);

Threshold of Concern - The degree by which actual performance may vary before further evaluation is initiated.

Data Source - Briefly describes the source of information or the collection technique employed in monitoring;

Position Responsible - Position responsible for program. Actual data collection may be accomplished by a variety of District and Forest employees;

Reporting Frequency - The number of times during a year when information is reported for evaluation purposes;

Data Storage - The location or description of where collected information and reports will be maintained; and

Annual Cost (\$) - Average annual cost for decade. Costs may vary from year to year. Project execution costs are not included. See Monitoring Element Worksheets in the planning records for projected costs for any given year.

Table 5-2  
SUMMARY OF MONITORING AND EVALUATION PROCESS

Resource Area	Action or Effect Monitored	Unit of Measure	Threshold of Concern	Data Source	Position <sup>1</sup> Responsible	Reporting Frequency <sup>3</sup>	Data Storage <sup>4</sup>	Annual Cost <sup>2</sup>
<b>Recreation</b>	Dispersed sites and Trails	Sites and trails	Any Change in Expected Recreational Experience	Project Review	Recreation Staff	Annual	CDB	35,000
	Recreation Opportunity Spectrum	Acres	1. 5% Change in Primitive, Semi-prim. Non-Motorized, Semi-prim. Motorized 2. 20% Change in Roaded Natural, Roaded Modified and Rural	Project Review Trans. Map	Recreation Staff	Annual	CDB	
	Wild and Scenic River	LAC Indicators To be Established	When more than one Indicator is not met	Field Review	Recreation Staff or District Rgr.	Annual	CDB	4,500
	Off-Road Vehicle Used	Acres	Damage outside of Established Standards. Conflicts with other Established Uses.	Project Review	Recreation Staff	Annual	CDB	2,000
	Scenery	Acres	Visual Quality Objective not being met	Field Review Photo Pts, Public	Recreation Staff	Annual	CDB	
<b>Wilderness</b>	Wilderness Resource	LAC Indicators To be Established in Wild. Plans	When more than one Indicator not met	Field Review Photo Pts.	Recreation Staff	Annual	CDB	9,600
<b>Cultural</b>	Ground-Disturbing Activities	Impacts to Sites	Indication that a Cultural Resource is or could be Impacted by an Activity	Field Review	Recreation Staff	Annual	Files	4,000

1. Position responsible for program. Actual Data Collection may be accomplished by a variety of district and forest employees.

2. Average cost per year for decade. Costs may vary from year to year. Costs may include baseline data collection in the initial years. See worksheets (Planning Records) for actual costs for any year.

3. Annual reporting frequency is intended to collect and summarize data each year. However, more time may be required for many resources to adequately assess trends that would trigger thresholds of concern.

4. Corporate Data Base

(Table continued on next page)

Resource Area	Action or Effect Monitored	Unit of Measure	Threshold of Concern	Data Source	Position Responsible	Reporting Frequency	Data Storage	Annual Cost
Fish	Habitat and Population	1. Quantity and Quality of - Rearing Pools 2. Populations (fish) 3. Large Wood Pcs. 4. Substrate & Bank Material	1. 10% Decline 2. 25% Declining Trend 3. 10% Decline 4. 20% Change of Substrate Components above background levels	Stream Surv.	Wildlife Staff	Annual	CDB Files	34,500
Wildlife	Population Trends and Habitat Capability for old-growth dependent species (Pine Martin)	Number of Animals: Acres of Suitable Habitat	Habitat Suitability less than min. stds 25% Decline in Presence Habitat area numbers and distribution less than min. requirements	Field Surv.	Wildlife Staff District Ranger	Annual	Files GIS	1,325
	Population Trends and habitat capability for snag dependent species (Primary Cavity Nesters)	Number of Animals; acres of suitable habitat	10% of Surveyed Areas have less than 90% of the prescribed and snags. 10% decrease in snag numbers shown in consecutive forest-wide timber inventories. Cavities are not being created to support a viable pop. of secondary cavity users	Field Survey	Wildlife Staff District Ranger	Annual	Files GIS	
	Population trends and habitat capability for old-growth and snag dependent species (Pileated Woodpecker)	Number of Animals; acres of suitable habitat Sightings	Habitat Suitability less than min. stds. Decline 15% in detected presence after estab. base Habitat area numbers and distribution less than min. requirements. Decline 20% in occupancy or reprod. success	Field Survey	Wildlife Staff District Ranger	Annual	Files GIS	

(Table continued on next page)

Resource Area	Action or Effect Monitored	Unit of Measure	Threshold of Concern	Data Source	Position Responsible	Reporting Frequency	Data Storage	Annual Cost
<b>Wildlife</b> ( continued)  <b>Threatened, Endangered and Sensitive Animal Species</b>	Population trends and habitat capability for Blacktailed deer and Roosevelt elk	Cover/Forage Ratio and acres of suitable habitat	Habitat Capability Falls 10% on Winter Range or 5% on Summer Range. Road densities exceed by 10%, 1.5 Mi./Sq Mi. 20% variation in population from plan objective	GIS, Landsat, Field RVWS., ODFW Census	Wildlife Staff District Ranger Forest Engineer	Annual	Files GIS	
	Population trends and habitat capability for old growth dependent species (Northern Spotted Owl)	Numbers of Animals; Acres of suitable habitat	Owl pairs >10% below predicted population levels. Fail to meet S&G's Fail to meet Assumptions in FEIS to protect add'l. habitat	R5/R6 Handbook RVW Project Field Inventory	Wildlife Staff District Ranger	Annual	Files GIS	
	Population trends and capability for T & E species (Peregrine Falcon)	Number of Animals; acres of suitable habitat	Active nests do not produce 2 years in succession Surveys not completed on schedule. Non-compliance with S & G's and Project Plans	Field Check Project Plan	Wildlife Staff District Ranger	Annual	Files GIS	
	Population trends and habitat capability for T & E species (Bald Eagle)	Numbers of Animals; acres of suitable habitat	Active Nest Sites inactive 2 years in succession Less than 90% of potential west nest sites suitable for occupancy Non-compliance with S & G's Site Specific Plans	Field Survey	Wildlife Staff District Ranger	Annual	Files GIS	
	Population trends and habitat capability for sensitive non-indicator species	Number of Animals; acres of suitable habitat	Inventories not completed on schedule	Office Review	Wildlife Staff	Annual	Files	

(Table continued on next page)

Resource Area	Action or Effect Monitored	Unit of Measure	Threshold of Concern	Data Source	Position Responsible	Reporting Frequency	Data Storage	Annual Cost
<b>Plants</b>	Threatened, Endangered and Sensitive Species	Populations	1. 20% decline in perennial species 2. 20% decline in Annual/Biennial Sp. over 2 years	Field Count	Wildlife Staff	Variable	Files	
<b>Research Natural Areas</b>	Natural Condition	1. Disturbance 2. Plant Comm 3. Sites	1. Significant Visible human caused 2. Change Trend 3. < 4 Sites Rep. Unfilled RNA cell remain	Field Review	Wildlife Staff	Biennial	Files	
<b>Range</b>	Transitory Range	1. Trees/Acre 2. Acres Utilized 3. Acres Utilized	1. Plantation Stocking Level reduced below recommended (400 trees/acre) 2. > 60% Of Allotment or > 60% of any acre in critical areas 3. 20% < Authorized level of utilization	Field Survey	Wildlife Staff	Annual	Files GIS CDB	8,500
	Primary and Secondary Range	Species Comp., Vigor, and percent cover	10% decrease in condition class rating over 3 yr. period	Condition and Trend Transect	Wildlife Staff	Annual	Files GIS CDB	3,200
<b>Timber</b>	Harvest by type of Silv. Treatment	1. Acres 2. Volume per acre	1. 10% variance in acres from predicted 2. 5% variance in volume per acre from predicted	Office Review	Timber Staff	Annual	Files GIS	
	Harvest Unit Size	Acres	10% of units exceed 40/60 Acre limit	Office Review	Timber Staff	Annual	GIS	
	Successful Reforestation in 5 years	Acres	5% of units harvested not reforested in 5 years	Office Review	Timber Staff	Annual	Reforestation records	500

(Table continued on next page)

Resource Area	Action or Effect Monitored	Unit of Measure	Threshold of Concern	Data Source	Position Responsible	Reporting Frequency	Data Storage	Annual Cost
Timber (continued)	Intensive Forest Management Practices	1. Years 2. Trees/Acre 3. Acres 4. Acres 5. Acres 6. Height Diameter	1. Avg. Regen. Lag Time Varies by 2 years 2. Actual stocking falls 15% below recommended 3. Untreated acres requiring PCT exceeds 300 4. All acres needing release treated within 2 years 5. Average annual acres of fertilization less than 500 6. Height/diameter growth rates vary by more than 3% from predicted	Office Review	Timber Staff	Annual	Files	
	Destructive Insect and Disease	Growth Loss	Regional Process currently being developed	Stand Exams Ref. Surveys Aerial Detection	Timber Staff	Annual	CDB	
	Land Allocation and Suitability	Acres	Change of plus or minus 3% of Timber suitable acres due to 5 year regen. req. 10% cover, resource damage, stability, etc.	Project Inventory suitability inventory	Forest Planning Staff	Annual	GIS	
	Total Yield to Net Yield	Cubic Feet	Actual gross to net adj. varies by 1% from predicted	Cruise and Scale samples Acres out of Production due to harvest impacts.	Timber Staff	Annual	Files	
	Yield Tables	Cubic Feet/Acre	Difference between best local yield simulator and existing model varies by more than 1%	Computer model runs	Timber Staff	One Time	CDB	

(Table continued on next page)



Resource Area	Action or Effect Monitored	Unit of Measure	Threshold of Concern	Data Source	Position Responsible	Reporting Frequency	Data Storage	Annual Cost
Timber (continued)	Other Yield Adjustments	1. Years 2. Cubic Feet 3. Harvest Prescription 4. Cubic Feet	1. Predicted delay due to frost varies by 5 years 2. Established gains due to Fertilization vary by 1% 3. Change in HCC/HSR amts. varies by 5% 4. Volume for one condition class varies by 5%	Office Review	Timber Staff	Annual	CDB	
	Board Foot/Cubic Conversion	Cubic Feet	Any deviation to predicted conversion factor	Office Review	Timber Staff	Annual	CDB	
Engineering	Harvest on Sensitive Terrain	1. Acres Harvested 2. Cubic Yards	1. Exceed Plan Projections 2. Harvest Activity results in soil movement > 50 c.y.	Field Inventory	Engineering Staff	5 years	CDB	
Diversity	Total Diversity	Various - See Worksheets	Various - See worksheets	Office Review	Wildlife Staff	5 years	GIS	
	Old-growth Forest	Acres	1. 10% decline by locator for commercial forest 2. 5% variance in volume per acre from predicted	Integrated Resource Inventory	Wildlife Staff	5 years	Files	
	Forest Fragmentation	1. Acres 2. Acres 3. Acres 4. Acres 5. Road Miles	1. 20% decline in Avg stand size of old growth 2. % of Locator in late seral stage 3. % old growth stands larger than 60 ac 4. 10% decline in corridor available per locator 5. 10% increase in miles of open road per locator	Integrated Resource Inventory	Wildlife Staff	5 years	GIS	
Air Quality	TSP emissions	Tons of TSP	Exceed 7,298 tons/year	Comp. Model	Fire Staff	Annual	CDB	

(Table continued on next page)

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Resource Area	Action or Effect Monitored	Unit of Measure	Threshold of Concern	Data Source	Position Responsible	Reporting Frequency	Data Storage	Annual Cost
Water	Watershed Condition Assessment	1. Acres	1. More than 10% Project area impacted adversely by Skid rds., landings, disp. soil. or erosion	Aerial Photos GIS, Field Survey	Watershed Staff	Annual	GIS	
		2. Acres	2. Hvst ac. exceed 70% or are less than 30% of projected Hvst. Constraint after 5 years					
		3. Fine Soil, mg/1	3. To be established					
		4. Shade, expressed as per cent	4. Shade loss in stream channel of more than 20% over current					
		5. Turbidity, either Jackson Turbidity Units (JTU's) or Nephelometric Turbidity Units (NTU's)	5. More than 10% increase in turbidity over natural level					
	Closed Roads	Road Miles	1. More than 5% road miles closed 10+ years ago not revegetated 2. More than 15% road miles closed 5 to 10 years ago not revegetated	Field Review	Forest Engineer	Annual	CDB	6,000
	Water Quality Changes	1. Project check-list 2. Shade, expressed as a per cent 3. Turbidity, either JTU's or NTU's 4. Temperature °F	1. BMPs not impemented 2. Shade loss in stream Channel of more than 20% 3. More than 10% increase in Turbidity over natural level 4. Any measurable increase when current temps are 58° F or greater or more than 2° F increase when temps are 56° F or less	Project Review Field Sampling	Watershed Staff	Annual	Files and corp. Data Base BMP Implementation	50,000 (15,000)

(Table continued on next page)

Resource Area	Action or Effect Monitored	Unit of Measure	Threshold of Concern	Data Source	Position Responsible	Reporting Frequency	Data Storage	Annual Cost
Water (continued)	Compliance with Safe Drinking Water Act	FSM 7420	Deviation Standards in FSM 7420, Public Health and Pollution control facilities	FS Potable Water Systems	Engineering Staff	FSM 7420	Paper Files	(40,000)
Fire	Protection	\$/1000 AC Protected	20% difference btwn actual and predicted fire mgt effectiveness index	Office Review	Fire Staff	Annual	CDB	
Social Economics	Employment	Unemployment	10% change from plan	Various other agency reports	Planning staff	Annual	Files	
	Payments to counties	Dollars	5% difference with Forest Plan predicted	Review Reports	Planning Staff	Annual	Files	
	New Public Issues	Issues	New or changed issues relevant to Forest Mgt.	Public contact	Public Affairs/ Planning Staff	Annual	Files	
	Changes in Local Income	Dollars	15% change in 3 years	Other Agency Reports	Planning Staff	Annual	Files	
	Changes in Local Population	Thousands of Persons	15% change in 3 years	Other Agency Reports	Planning Staff	Annual	Files	
	Changes in Forest contribution to area Forest Products Industries	MMBF/Yr % Industry Distribution	Fails to meet plan objectives	Track raw mtl. Flow to Mills	Timber Staff	Annual	Files	
	Costs and Values	Dollars	Real Dollar Change of 1%/yr. From Forest Plan	Appraisals TSSA Reports, contracts	LMP Staff	Annual	Corp. Data Base	1,500
Minerals	Locatable	Projects	1. Surface disturbance without NOI or operating plan	Field Review	District Ranger Lands Staff	Annual	Files	

(Table continued on next page)

Resource Area	Action or Effect Monitored	Unit of Measure	Threshold of Concern	Data Source	Position Responsible	Reporting Frequency	Data Storage	Annual Cost
<b>Minerals</b> (continued)	Salable	Rock pits	2. Rehabilitation not Done Development and Rehab not performed according to approved plans	Field Review	District Ranger Lands Staff	Annual	GIS	
<b>Lands</b>	Ownership	Adjustments	No adjustments made within 5 years	Office Review	Lands Staff	5 Year	GIS	
	Adjacent Land	N/A	When planned activities and outputs cannot be achieved without violating standards and guidelines	Meetings with gov't agencies, major land holders and management reviews	Planning Staff	Annual	Paper Files	None
<b>Special Uses</b>	Management	Permits	Not meeting resource standards and guidelines	Field Inspect.	Recreation Staff	Annual	Files	
<b>All Elements</b>	Forest Programs and Budget	Outputs and Funding Levels	1. Goods and services vary 20% from Forest Plan 2. Timber program costs vary 20% for 3 consecutive years 3. Road costs incurred vary 20% for 3 consecutive years 4. Capital investment funding varies 20% for 3 consecutive years.	Existing Reports	Administrative	Annual	Files	

## EVALUATION

The data collected during monitoring will be evaluated using Figure 5-2, Evaluation Flow Chart. As indicated in the chart, the results of the evaluation lead to recommendations of the following types:

Revision of the Forest Plan;

Amendment of the Forest Plan to reflect modification of management practice or change allocation;

Revise schedule of proposed activities;

Adjustment of budget requests as needed to compensate for changed conditions.

Change management practice application.

The document resulting from the use of the evaluation flow chart constitutes the evaluation report. As applicable, the following will be included in each evaluation report:

A quantitative estimate of performance comparing outputs and services with those projected by the Forest Plan;

Documentation of measured effects, including any changes in productivity of the land;

Unit costs associated with carrying out planned activities as compared with unit costs estimated during Forest Plan development;

Recommendations for changes;

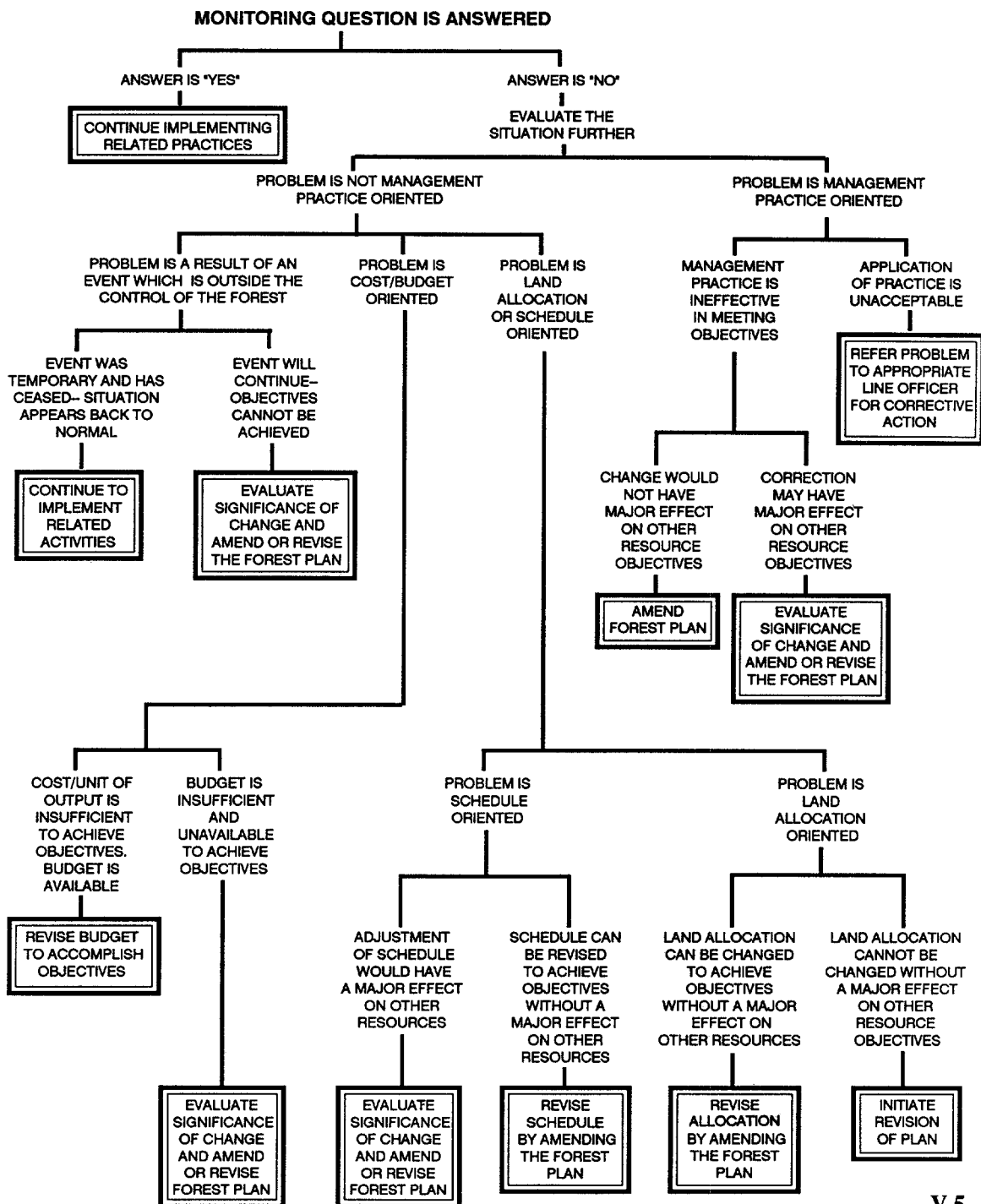
A list of needs for evaluation of management systems and for alternative methods of management;

A list of additional research needed to support the management of the Forest;

Identification of additional monitoring needs to facilitate achievement of the monitoring goals.



Figure 5-2  
EVALUATION FLOW CHART



V-5

## **AMENDMENT AND REVISION**

The Forest Plan incorporates legal mandates, professional judgement and the public's stated concerns into a future vision of the Forest. It charts a path for getting there by developing management goals and objectives and translating them into management direction in the form of standards and guidelines for management areas on the Forest. National Forest planning is a dynamic process, and the products - Forest Plans - are similarly dynamic. Forest Plans can and should be modified if conditions warrant. As management goals are applied on the ground or as new information is learned about resources, the Plan's goals and objectives, or activities the goals generate, may no longer be appropriate. In such instances, activities may be tailored to fit the resource, or planning objectives as stated in the Plan may be amended. Forest Plans do not apply direction in site-specific management activities. It would be unrealistic and wrong to try to identify, analyze and schedule the myriad projects or activities that occur on a National Forest. Instead, this type of site-specific planning occurs at the project-level planning stage, such as allotment management planning.

The Forest Supervisor may amend the Forest Plan. Based on an analysis of the objectives, standards, and other contents of the Plan, the Forest Supervisor shall determine whether a proposed amendment would result in a significant change. If the change resulting from the proposed amendment is determined to be significant, the Forest Supervisor shall follow the same procedure as that required for development and approval of a Forest Plan. If the change resulting from the amendment is determined not to be significant for the purposes of the planning process, the Forest Supervisor may implement the amendment following appropriate public notification and satisfactory completion of NEPA procedures.

The Forest Plan shall ordinarily be revised on a 10-year cycle or at least every 15 years. It also may be revised whenever the Forest Supervisor determines that conditions or demands in the area covered by the Plan have changed significantly or when changes in Resource Planning Act policies, goals or objectives would have a significant effect on Forest level programs. In the monitoring and evaluation process, the Interdisciplinary Team may recommend a revision of the Forest Plan at any time. Revisions are not effective until considered and approved in accordance with the requirements for the development and approval of the Forest Plan. The Forest Supervisor shall review the conditions on the land covered by the Plan at least every five years to determine whether conditions or demands of the public have changed significantly.





# APPENDIX A

## 10-YEAR ACTIVITY SCHEDULES

This appendix lists the 10-year activity schedule for the proposed forest projects.



## APPENDIX A

# 10-YEAR ACTIVITY SCHEDULES

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### INTRODUCTION

The Activity Schedules included in this Appendix depict activities and/or projects necessary to provide planned outputs, services, and environmental protection measures identified in the Forest Plan.

The 10-Year Sale Activity Schedule reflects projects compiled by the Districts based on the best information currently available. Those sale proposals listed

in the earlier portion of the schedule generally have more intensive field reconnaissance information, while those in the out-years (three years and beyond) are based on less site-specific data and as such are subject to change and/or adjustment as better information becomes available. Individual proposals may be revised, deleted or added as necessary to accomplish the goals of the Forest Plan. Firm timber sale programs will be announced approximately every six months by the Forest during Plan implementation.

### ACTIVITY SCHEDULE LEGEND

The Activity Schedules on the following pages (except Timber Sale Program) use the following headings:

Column Heading	Description
Ranger District	Ranger District or Administrative Unit (i.e., Applegate, Ashland, Butte Falls, Prospect or Nursery).
Project Name	Name or description of the planned activity.
Fund Code	Alpha label based on National Accounting Standard (NAS). Use of this code allows for the aggregation of unit costs in the budget program.
FY	Fiscal Year in which project is scheduled.
Unit Measure	Unit of measure.
Unit	Total number of units.
M \$	Total dollars in thousands.

## 10-YEAR ACTIVITY SCHEDULES

The Timber Sale Activity Schedule is organized differently, using these headings:

<b>Column Heading</b>	<b>Description</b>
Sale Name	Name of the proposed project.
Sale Number	Number identifies Fiscal Year in which the project is scheduled, District, and Sale (ie. first number is equal to last digit of the fiscal year - 0601 = FY 90; second number is equal to the last digit of the District number - in this case Prospect which has a unit number of 06, [Applegate = 01, Ashland = 02 and Butte Falls = 03]; third and forth numbers represent the sale number given by the District).
Management Area	Identifies which Management Areas (Strategies in Chapter 4) apply to the sale area.
Legal Description	Township, Range, Section and Meridian.
Acres	Number of acres to be treated.
MMBF	Estimated Million Board Feet to be harvested.
Harvest Method	HCC -Harvest Clearcut HCR -Harvest Clearcut, with Reserve Seed Trees HFR -Harvest Final Removal Cut HSC -Harvest Selection Cut HSH -Harvest Shelterwood Cut HSV -Harvest Salvage Cut HTM -Harvest Thinning Cut HSM -Harvest Streamside Management Cut
Harvest System	S -Skyline MS -Mobile System C -Cable or Highlead H -Helicopter T -Tractor
Road Miles	C -Road Construction R -Road Reconstruction

## WATERSHED

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Applegate	Palm Sale Riparian Revegetation	CWKV	90	Acres	1.0	0.9
Applegate	Summit Lake Sale Gate	CWKV	90	Acres	1.0	0.7
Applegate	Reservoir Shoreline Stabilization	NFSW	90	Acres	10.0	10.0
Applegate	Flumet Sale Roadside Mulching	CWKV	90	Acres	1.0	5.0
Ashland	True Blue TS	CWKV	90	Acres	5.0	1.8
Ashland	L. Applegate Watershed	NFSW	90	Acres	5.0	2.0
Ashland	McDonald Basin Stabilization	RMTR	90	Acres	40.0	7.0
Ashland	McDonald Basin Report	NFSW	90	Acres	40.0	1.0
Ashland	Clayton Fire Erosion Control	NFSW	90	Acres	10.0	1.0
Ashland	Ashland Watershed	RMTR	90	Acres	10.0	4.0
Ashland	South Fork L. Butte Creek Stabilization	NFSW	90	Acres	3.0	12.0
Butte Falls	Barley Riparian Rehabilitation	CWKV	90	Acres	1.0	3.9
Butte Falls	High/Wapiti Riparian Plant	CWKV	90	Acres	0.5	1.0
Butte Falls	Clement Seeding	CWKV	90	Acres	45.0	2.7
Butte Falls	Growse Wing Site Restoration	CWKV	90	Acres	25.0	1.5
Butte Falls	Key Seeding	CWKV	90	Acres	36.0	2.2
Butte Falls	Lion Thin Seeding	CWKV	90	Acres	80.0	4.8
Butte Falls	Loop Landing Revegetation	CWKV	90	Acres	0.3	0.1
Butte Falls	Loop Seeding	CWKV	90	Acres	65.0	3.8
Butte Falls	Lumberjack Seeding	CWKV	90	Acres	20.	1.2
Butte Falls	Peak Seeding	CWKV	90	Acres	50.0	3.0
Butte Falls	Shake Camp 2 Seeding	CWKV	90	Acres	54.0	3.2
Butte Falls	Stork Seeding	CWKV	90	Acres	45.0	2.7
Butte Falls	High/Wapiti Gates	CWKV	90	Structures	1.0	0.8
Butte Falls	West Beaver Gates	CWKV	90	Structures	4.0	3.3
Prospect	Mooney TS - Road Restoration	CWKV	90	Structures	6.0	2.4
Prospect	Crawford Creek - Channel Stabilization	RMTR	90	Acres	2.0	5.5
Prospect	Crawford Creek - Willow Plant	RMTR	90	Acres	1.0	0.7
Prospect	Woodruff - Renovation	RMTR	90	Acres	5.0	3.0
Prospect	Woodruff - Erosion	RMTR	90	Acres	3.0	2.5
Prospect	Crawford Creek - Revegetation	RMTR	90	Acres	1.0	0.5
Forest Wide	Wetland Identification Key	NFSW	90	Plans	1.0	1.0
Forest Wide	Class 3 Stream Survey	NFSW CWKV	90	Miles	76.5 51.0	19.1 12.8
Forest Wide	Soil, Water and Fish Accomplishment Report	NFSW	90	Plans	1.0	1.0
Forest Wide	KV Revision Opportunities	NFSW	90	Plans	1.0	13.0
Applegate	Summit Lake Sale Subsoiling	CWKV	91	Acres	10.0	3.1
Applegate	Triple Sale Riparian Rehab	CWKV	91	Acres	2.0	3.7

10-YEAR ACTIVITY SCHEDULES

WATERSHED (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Applegate	Ranch Sale Seeding	CWKV	91	Acres	3.0	0.9
Applegate	Haskins Road Plant/Seed/Mulch	NFSW	91	Acres	2.0	6.0
Applegate	Beaver Creek Road Maintenance Structures	NFSW	91	Acres	1.0	1.5
Applegate	French Fried Slide Surface Treatment	NFSW	91	Acres	1.0	2.5
Applegate	Timber Sale Watershed Mitigation	CWKV	91	Acres	1.0	1.5
Ashland	Captain Pickle TS	CWKV	91	Acres	2.0	1.2
Ashland	Pumpkin Butte Timber Sale	CWKV	91	Acres	2.0	1.3
Ashland	Schooner TS	CWKV	91	Acres	2.0	3.0
Ashland	McDonald Basin	NFSW	91	Acres	10.0	2.5
Butte Falls	Vino Riparian Plant	CWKV	91	Acres	1.0	0.8
Butte Falls	Hoot Spring Fence	CWKV	91	Structures	1.0	5.0
Butte Falls	Hill Spring Fence	CWKV	91	Structures	1.0	1.2
Butte Falls	Indian Creek 1 Seeding	CWKV	91	Acres	120.0	8.4
Butte Falls	Tie Thin Fence Wet Area	CWKV	91	Structures	1.0	4.0
Butte Falls	West Sump Seeding	CWKV	91	Acres	75.0	5.2
Prospect	Skidroads/Landing - Restoration	CWKV	91	Acres	40.0	4.4
Prospect	Culvert Erosion Control	NFSW	91	Acres	1.0	1.8
Prospect	Abbott Creek Culvert Repair	CWKV	91	Structures	4.0	1.0
Prospect	Springs - Rehabilitation	NFSW	91	Acres	1.0	1.5
Forest Wide	Class 3 Streams Survey	NFSW CWKV	91	Miles	87.3 58.2	21.8 14.5
Forest Wide	Watershed Improvement Needs (WIN) Update	NFSW	91	Plans	1.0	30.0
Forest Wide	Annual Accomplishment Report	NFSW	91	Plans	1.0	1.0
Ashland	Mt. Ashland Ski Area	FFC	91	Acres	10.0	5.0
Forest Wide	Rehabilitation Maintenance	NFSW	91	Structures	10.0	2.0
Forest Wide	Native Plant Stock for Revegetation	NFSW	91	Each	2000.0	4.0
Applegate	Shasta Sale Meadow Rehab	CWKV	92	Acres	10.0	5.2
Applegate	Newt Gulch Road Rehab	NFSW	92	Acres	1.0	3.5
Applegate	Beaver Creek Road Maintenance Structures	NFSW	92	Acres	1.0	1.5
Ashland	Iron Springs TS	CWKV	92	Acres	10.0	18.2
Ashland	Ashland Watershed	NFSW	92	Acres	10.0	5.0
Butte Falls	North Daniel Erosion	CWKV	92	Structures	132.0	1.4
Butte Falls	North Daniel Seeding	CWKV	92	Acres	205.0	14.3
Butte Falls	South Rustler Fence Wet Area	CWKV	92	Structures	2.0	12.0
Butte Falls	Skeeter Creek Fence	NFSW	92	Structures	4.0	0.9
Butte Falls	Boulder Gates	CWKV	92	Structures	2.0	1.5
Butte Falls	Jeep Seeding	CWKV	92	Acres	80.0	5.6
Butte Falls	Rust Thin Erosion Seeding	CWKV	92	Acres	31.0	2.5

## WATERSHED (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Prospect	Skidroads/Landing - Restoration	NFSW	92	Acres	40.0	4.6
Prospect	Culvert Erosion Control	NFSW	92	Project	1.0	2.2
Prospect	Spring - Rehabilitation	NFSW	92	Project	1.0	1.8
Prospect	Nine TS - Stream Rehabilitation	CWKV	92	Project	1.0	1.0
Prospect	Tan TS - Road Restoration	CWKV	92	Acres	10.0	1.2
Forest Wide	Class 3 Structuresream Survey	NFSW CWKV	92	Miles	68.4 45.6	17.1 11.4
Forest Wide	WIN Update	NFSW	92	Plans	1.0	5.0
Forest Wide	Annual Accomplishment Report	NFSW	92	Plans	1.0	1.0
Forest Wide	Rehabilitation Maintenance	NFSW	92	Structures	10.0	2.0
Forest Wide	Native Plant Stock for Revegetation	NFSW	92	Each	2000.0	4.0
Applegate	Silver Fork Basin Riparian Rehab	NFSW	93	Acres	10.0	10.0
Applegate	Elliott Creek Ridge Gully Stabilization	NFSW	93	Acres	1.0	3.0
Applegate	Hoskins Road Plant/Seed/Mulch	NFSW	93	Acres	1.0	6.0
Applegate	Squaw Ford (Rd 550) Gully Stabilization	NFSW	93	Acres	1.0	1.5
Applegate	Timber Sale Watershed Mitigation	CWKV	93	Acres	1.0	1.5
Ashland	Horn Gulch TS	CWKV	93	Acres	2.0	1.5
Ashland	Cabbage Patch TS	CWKV	93	Acres	5.0	5.0
Butte Falls	Fee Barrier	CWKV	93	Structures	1.0	0.3
Butte Falls	Fee Stream Clean	CWKV	93	Acres	1.0	1.9
Prospect	Silver TS - Meadow Rehab	CWKV	93	Project	1.0	6.4
Prospect	Skidroads/Landing - Restoration	CWKV	93	Acres	10.0	1.2
Prospect	Skidroads/Landing - Restoration	NFSW	93	Acres	40.0	4.8
Prospect	Culvert Erosion Control	NFSW	93	Project	1.0	2.3
Prospect	Spring - Rehabilitation	NFSW	93	Project	1.0	1.9
Forest Wide	Class 3 Stream Survey	NFSW CWKV	93	Miles	54.5 36.3	13.6 9.1
Forest Wide	WIN Update	NFSW	93	Plans	1.0	5.0
Forest Wide	Annual Accomplishment Report	NFSW	93	Plans	1.0	1.0
Forest Wide	Rehabilitation Maintenance	NFSW	93	Structures	10.0	2.0
Forest Wide	Native Plan Stock for Revegetation	NFSW	93	Each	2000.0	4.0
Applegate	Beaver Creek Road Maintenance Structures	NFSW	94	Acres	1.0	1.5
Applegate	Upper Tamarack Meadow Gully	NFSW	94	Acres	1.0	3.0
Applegate	Silver Fork Basin Gully Stabilization	NFSW	94	Acres	1.0	3.0
Ashland	14-Two TS	CWKV	94	Acres	10.0	3.0
Ashland	Fishead TS	CWKV	94	Acres	5.0	1.5
Butte Falls	Upper Stream Clean	CWKV	94	Acres	1.0	0.9
Butte Falls	Boulder/Pump Riparian Monitoring	CWKV	94	Acres	200.0	8.0

10-YEAR ACTIVITY SCHEDULES

**WATERSHED (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Butte Falls	Bear Thin Gates	CWKV	94	Structures	2.0	2.3
Butte Falls	Upper Gates	CWKV	94	Structures	4.0	3.0
Prospect	Skidroads/Landing - Restoration	CWKV	94	Acres	10.0	1.3
Prospect	Skidroads/Landing - Restoration	NFSW	94	Acres	35.0	4.4
Prospect	Culvert Erosion Control	NFSW	94	Project	1.0	2.4
Prospect	Spring - Rehabilitation	NFSW	94	Project	1.0	2.0
Forest Wide	Native Plant Stock for Revegetation	NFSW	94	Each	1000.0	2.0
Forest Wide	Class 3 Stream Survey	NFSW CWKV	94	Miles	58.5 39.0	14.6 9.8
Forest Wide	WIN Update	NFSW	94	Plans	1.0	2.5
Forest Wide	Annual Accomplishment Report	NFSW	94	Plans	1.0	1.0
Forest Wide	Rehabilitation Maintenance	NFSW	94	Acres	20.0	10.0
Applegate	Timber Sale Watershed Mitigation	CWKV	95	Acres	1.0	1.5
Applegate	Silver Fork Basin Riparian Rehab	NFSW	95	Acres	1.0	3.0
Applegate	Hskins Rd Plant/Seed/Mulch	NFSW	95	Acres	1.0	3.0
Ashland	Hamilton TS	CWKV	95	Acres	20.0	3.0
Ashland	Utopia TS	CWKV	95	Acres	5.0	1.5
Butte Falls	Erosion Seeding	CWKV	95	Acres	100.0	7.0
Butte Falls	Riparian Monitor	CWKV	95	Acres	20.0	3.0
Butte Falls	Erosion Control	CWKV	95	Structures	40.0	4.0
Prospect	Skidroads/Landing - Restoration	CWKV	95	Acres	10.0	1.3
Prospect	Skidroads/Landing - Restoration	NFSW	95	Acres	35.0	4.5
Prospect	Culvert Erosion Control	NFSW	95	Project	1.0	2.5
Prospect	Spring - Rehabilitation	NFSW	95	Project	1.0	2.1
Forest Wide	WIN Update	NFSW	95	Plans	1.0	2.0
Forest Wide	Annual Accomplishment Report	NFSW	95	Plans	1.0	1.0
Forest Wide	Rehabilitation Maintenance	NFSW	95	Miles	10.0	5.0
Forest Wide	Native Plant Stock for Rehabilitation	NFSW	95	Each	750.0	2.0
Forest Wide	Class 3 Stream Survey	NFSW CWKV	95	Miles	47.3 31.5	11.8 7.8
Applegate	Yew Wood-Obrien Area Riparian Rehab	NFSW	96	Acres	1.0	2.0
Applegate	Road 250 (Obrien) Riparian	NFSW	96	Acres	1.0	2.0
Ashland	Hottub TS	CWKV	96	Acres	5.0	1.5
Ashland	Skid and Landing Rehab	CWKV	96	Acres	20.0	5.0
Butte Falls	Erosion Seeding	CWKV	96	Acres	100.0	7.0
Butte Falls	Riparian Monitor	CWKV	96	Acres	20.0	3.0
Forest Wide	Class 3 Stream Survey	NFSW CSKV	96	Miles	43.2 28.8	10.8 7.2
Forest Wide	Annual Accomplishment Report	NFSW	96	Plans	1.0	1.0

## WATERSHED (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Forest Wide	WIN Update	NFSW	96	Plans	1.0	1.5
Forest Wide	Rehabilitation Maintenance	NFSW	96	Acres	30.0	15.0
Forest Wide	Native Plant Stock for Rehabilitation	NFSW	96	Each	750.0	2.0
Forest Wide	Class 3 Stream Survey	NFSW CWKV	96	Miles	58.1 38.7	14.5 9.7
Butte Falls	Stream Clean	CWKV	96	Acres	10.0	5.0
Prospect	Skidroads/Landing - Restoration	CWKV	96	Acres	5.0	0.7
Prospect	Skidroads/Landing - Restoration	NFSW	96	Acres	25.0	3.4
Prospect	Culvert Erosion Control	NFSW	96	Project	1.0	2.6
Prospect	Spring - Rehabilitation	NFSW	96	Project	1.0	2.1
Applegate	Beaver Creek Road Maintenance Structures	NFSW	97	Acres	1.0	1.5
Applegate	Silver Fork Basin Gully Stabilization	NFSW	97	Acres	1.0	3.0
Applegate	Timber Sale Watershed Mitigation	CWKV	97	Acres	1.0	1.5
Ashland	Skid and Landing Rehabilitation	CWKV	97	Acres	20.0	5.0
Butte Falls	Erosion Seeding	CWK	97	Acres	100.0	7.0
Butte Falls	Stream Clean	CWKV	97	Acres	5.0	2.5
Butte Falls	Road Closures	CWKV	97	Structures	5.0	4.0
Prospect	Skidroads/Landing - Restoration	CWKV	97	Acres	5.0	0.7
Prospect	Skidroads/Landing - Restoration	NFSW	97	Acres	25.0	2.8
Prospect	Culvert Erosion Control	NFSW	97	Project	1.0	2.7
Prospect	Spring - Rehabilitation	NFSW	97	Project	1.0	2.2
Forest Wide	WIN Update	NFSW	97	Plans	1.0	1.5
Forest Wide	Annual Accomplishment Report	NFSW	97	Plans	1.0	1.0
Forest Wide	Rehabilitation Maintenance	NFSW	97	Acres	30.0	15.0
Forest Wide	Native Plant Stock for Rehabilitation	NFSW	97	Each	750.0	2.0
Applegate	Timber Sale Watershed Mitigation	CWKV	98	Acres	1.0	1.5
Applegate	Squaw Lake Gully Stabilization	NFSW	98	Acres	1.0	3.5
Applegate	Yew Wood-Obrien Area Riparian Rehabilitation	NFSW	98	Acres	1.0	1.5
Applegate	Armstrong Gulch Gully and Riparian Stability	NFSW	98	Acres	1.0	2.5
Ashland	Skid and Landing Rehab	CWKV	98	Acres	20.0	5.0
Butte Falls	Erosion Seeding	CWKV	98	Acres	100.0	7.0
Butte Falls	Road Closures	CWKV	98	Structures	5.0	4.0
Prospect	Skidroads/Landing - Restoration	CWKV	98	Acres	5.0	0.7
Prospect	Skidroads/Landing - Restoration	NFSW	98	Acres	15.0	2.2
Prospect	Culvert Erosion Control	NFSW	98	Project	1.0	2.8
Prospect	Spring - Restoration	NFSW	98	Project	1.0	2.3
Forest Wide	Class 3 Stream Survey	NFSW CWKV	98	Miles	72.9 48.6	18.2 12.2



## WATERSHED (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Forest Wide	WIN Update	NFSW	98	Plans	1.0	1.0
Forest Wide	Annual Accomplishment Report	NFSW	98	Plans	1.0	1.0
Forest Wide	Rehabilitation Maintenance	NFSW	98	Acres	30.0	15.0
Forest Wide	Native Plant Stock for Rehabilitation	NFSW	98	Each	500.0	1.5
Applegate	Beaver Creek Road Maintenance Structures	NFSW	99	Acres	1.0	2.0
Applegate	Silver Fork Basin Gully Stabilization	NFSW	99	Acres	1.0	3.5
Applegate	Haskins Road Plant/Seed/Mulch	NFSW	99	Acres	1.0	2.5
Applegate	Camp 19 Road System Plant/Seed/Mulch	NFSW	99	Acres	1.0	4.0
Ashland	Skid and Landing Rehabilitation	CWKV	99	Acres	20.0	5.0
Butte Falls	Erosion Seeding	CWKV	99	Acres	100.0	7.0
Prospect	Skidroads/Landing - Restoration	CWKV	99	Acres	5.0	0.8
Prospect	Skidroads/Landing - Restoration	NFSW	99	Acres	15.0	2.3
Prospect	Culvert Erosion Control	NFSW	99	Project	1.0	2.9
Prospect	Spring - Restoration	NFSW	9	Project	1.0	2.4
Forest Wide	Class 3 Stream Survey	NFSW CWKV	99	Miles	55.5 37.0	13.9 9.3
Forest Wide	WIN Update	NFSW	99	Plans	1.0	1.0
Forest Wide	Annual Accomplishment Report	NFSW	99	Plans	1.0	1.0
Forest Wide	Rehabilitation Maintenance	NFSW	99	Acres	30.0	15.0
Forest Wide	Native Plant Stock for Rehabilitation	NFSW	99	Each	500.0	1.5

## BOTANICAL RESOURCES

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Forest Wide	Species Status Reports/Surveys TAHO and CYFA	NFWF	90	Reports	2	8.0
Forest Wide	Species Management Guides (SMGs)	NFWF	90	Plans	4	8.0
Forest Wide	Taxonomic Studies - carex scabriscula	NFWF	90	Reports	1	2.0
Forest Wide	T,E&S Species Surveys Outside of Sale Areas	NFWF	90	Acres	1500	3.0
Forest Wide	Photoherbarium	NFWF	90	Collections	4	2.0
Forest Wide	Center for Plant Conservation Seedbanking	NFWF	90	Species	5	2.5
Forest Wide	Potential RNA Cells/Sites (Identify and Prioritize)	NFWF	90	Cells	All	0.8
Forest Wide	Forest Plan (FP) Monitoring Sensitive Plants (Design/Survey First Years Data)	NFWF	90	Sampling	5	4.5
Forest Wide	FP Monitoring - RNAs	NFWF	90	Surveys	3	2.0
Forest Wide	FP Monitoring Biological Diversity (Initial)	NFWF	90	Report	1	1.0
Forest Wide	SMGs Monitoring (Design First Year Data)	NFWF	90	Design	2	2.0
Applegate	Species Ecological Investigations CUBA (Interim)	NFWF	90	Report	1	2.0
Applegate	Habitat Improvements for Specific Species - CUBA	NFWF	90	Acres	10	4.0
Applegate	Applegate Sedums Plan (Photo Display)	NFWF	90	Display	1	0.5
Applegate	Botanical Area Species/Communities Inventory	NFWF	90	Area	1	3.0
Applegate	Botanical Area Management Plans	NFRN	90	Plan	1	1.5
Applegate	Botanical Area Trail Construction	CNTR	90	Miles	1	4.0
Applegate	Botanical Area Interpretive Signs	CNRF	90	Signs	2	1.0
Applegate	Charlie Buck Burn Study	NFWF	90	Acres	8	1.2
Applegate	Pond TS RIMA Monitor	CWKV	90	Sampling	1	0.4
Applegate	Dreamboat TS CYFA Monitor	CWKV	90	Structures	1	1.2
Applegate	Dutchman Botanical Area Exclosure	NFWF	90	Structures	1	1.0
Applegate, Ashland	Botanical Area Monitoring (Design/Survey First Years Data)	NFWF	90	Data	3	1.0
Ashland	McDonald Basin Exclosure	NFWF	90	Structures	1	1.0
Ashland, Applegate	Exclosures/Range Effects	NFRG	90	Sampling	2	2.0
Ashland, Applegate, Butte Falls	Checklists/Brochures	NFWF	90	Reports	3	1.0
Butte Falls	Whiskey Springs Exclosure	NFWF	90	Acres	1.4	1.5
Prospect	RNA Establishment Reports - Sherwood	NFWF	90	Reports	1	1.0
Prospect	Species Land Use Effects COMA and FRUM (Design/Survey First Years Sampling)	NFWF	90	Sampling	2	4.0
Forest Wide	Species Status Reports/Surveys	NFWF	91	Report	1	4.0
Forest Wide	SMGs	NFWF	91	Plan	4	8.0
Forest Wide	Species Ecological Investigations (Design/ Survey First/Second Years Sampling)	NFWF	91	Sampling	2	6.0
Forest Wide	Species Land Use Effects (Design/Survey First Years Sampling)	NFWF	91	Sampling	2	5.5

## 10-YEAR ACTIVITY SCHEDULES

## BOTANICAL RESOURCES (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Forest Wide	Exclosures/Range Effects	NFRG	91	Samplings	2	0.8
Forest Wide	Photoherbarium	NFWF	91	Collections	4	1.0
Forest Wide	Sensitive Plant Draft Field Guide	NFWF	91	Plan	1	3.0
Forest Wide	Geographic Information System (GIS) Implementation (Early Processing)	NFWF	91	Process	1	1.0
Forest Wide	Type Localities Designation	NFWF	91	Sampling	1	2.0
Forest Wide	Potential RNA Cells/Sites Inventory (Locate Preliminary Sites)	NFWF	91	Sites	10	3.0
Forest Wide	SMGs Monitoring (Design/Survey First/Second Years Data)	NFWF	91	Data	4	4.0
Forest Wide	FP Monitoring- Sensitive Plants (Design First Year Data)	NFWF	91	Data	5	4.5
Forest Wide	FP Monitoring - RNAs	NFWF	91	Surveys	3	2.4
Forest Wide	FP Monitoring - Biological Diversity (First Year Data)	NFWF	91	Report	1	9.15
Applegate	Habitat Improvements for Specific Species - CUBA	NFWF	91	Acres	10	7.0
Applegate	Dreamboat TS CYFA Monitoring (Second Sampling)	CWKV	91	Sampling	1	0.5
Applegate	Taxonomic Studies - Gentiana Pleurisetosa	NFWF	91	Report	1	6.0
Applegate	Relocate and Mark Populations	NFWF	91	Marks	10	1.7
Applegate	Sturgis Compartment Survey	NFWF	91	Acres	7803	11.7
Applegate	Steve Compartment Survey	NFWF	91	Acres	7676	11.5
Applegate	Botanical Area Species/Communities Inventory	NFWF	91	Area	1	3.0
Applegate	Botanical Area Management Plans	NFRN	91	Plan	1	1.5
Applegate	Botanical Area Trail Construction	CNTR	91	Mile	2	10.0
Applegate	Botanical Area Interpretive Signs	CNRF	91	Signs	2	1.0
Applegate	RNA Establishment Reports- Oliver Matthews	NFWF	91	Report	1	1.0
Applegate, Ashland	Botanical Area Monitoring (Design/Survey First Years Data)	NFWF	91	Survey	3	1.0
Ashland, Applegate	Botanical Areas Guide Booklet	NFRN	91	Plan	1	0.5
Butte Falls	Herbarium Improvements	NFWF	91	Collection	1	1.0
Forest Wide	Species Status Reports/Surveys	NFWF	92	Report	2	8.0
Forest Wide	SMG	NFWF	92	Plan	4	8.0
Forest Wide	T,E&S Species Surveys Outside of Sale Areas	NFWF	92	Acres	1500	3.0
Forest Wide	Species Ecological Investigations (Design/ Sampling)	NFWF	92	Design	2	3.0
Forest Wide	Species Land Use Effects (Design/Sampling)	NFWF	92	Design	2	5.0
Forest Wide	Exclosures/Range Effects	NFRG	92	Sampling	2	0.8
Forest Wide	Native Plant Rehabilitation Projects for Erosion Control and Stabilization	NFSW	92	Acres	1	1.0
Forest Wide	Native Plant Rehabilitation Projects for Recreation Sites	NFRN	92	Acres	1	1.0

**BOTANICAL RESOURCES (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Forest Wide	Habitat Improvements for Specific Species	NFWF	92	Acres	2	3.0
Forest Wide	Photoherbarium (Improvement)	NFWF	92	Improve	4	3.0
Forest Wide	Sensitive Plant Field Guide (Finished)	NFWF	92	Plan	1	3.0
Forest Wide	GIS Initial Implementation	NFWF	92	Implement	1	4.0
Forest Wide	Center for Plant Conservation Seedbanking	NFWF	92	Species	5	2.5
Forest Wide	Type Localities Designation (Literature and Field Search)	NFWF	92	Search	1	0.5
Forest Wide	Noxious Weed Control	NFRG	92	Acres	5	2.0
Forest Wide	Potential RNA Cells/Sites Inventory (Collect Site Vegetation Data)	NFWF	92	Inventory	10	6.0
Forest Wide	FP Monitoring - Sensitive Plants	NFWF	92	Sampling	8	4.5
Forest Wide	FP Monitoring - RNAs	NFWF	92	Sampling	3	0.8
Forest Wide	FP Monitoring - Biological Diversity	NFWF	92	Report	1	12.7
Forest Wide	SMGs Monitoring (Design/Sampling)	NFWF	92	Design	4	4.0
Applegate	Applegate Sedums Plan	NFWF	92	Plan	1	2.5
Applegate	Dreamboat TS CYFA Monitoring	CWKV	92	Sampling	1	0.5
Applegate	Pond TS RIMA Monitoring	CWKV	92	Sampling	1	0.5
Applegate	Relocate and Mark Populations	NFWF	92	Marks	10	1.7
Applegate	Azalea Compartment Survey	NFWF	92	Acres	8477	12.7
Applegate	Botanical Area Management Plans	NFRN	92	Plan	2	3.0
Applegate	Botanical Area Interpretive Signs	CNRF	92	Signs	2	1.0
Applegate	Botanical Area Habitat Improvements	NFWF	92	Acres	5	5.0
Applegate, Ashland	Botanical Area Monitoring (Design/Survey First Years Sampling)	NFWF	92	Sampling	3	1.0
Ashland	Botanical Area Species/Communities Inventory	NFWF	92	Area	1	3.0
Ashland	Botanical Area Trail Construction McDonald Peak	CNTR	92	Mile	1.5	6.0
Ashland	Ironspring TS Post-Sale ASWA Study (Design/Sampling)	CWKV	92	Design		
Ashland, Applegate	Botanical Areas Guide Booklet (Draft Version)	NFRN	92	Plan	1	1.0
Forest Wide	Species Status Reports/Surveys	NFWF	93	Report	1	4.0
Forest Wide	SMGs	NFWF	93	Plan	4	8.0
Forest Wide	Taxonomic Studies	NFWF	93	Report	1	2.0
Forest Wide	Species Ecological Investigations (Design/Sampling)	NFWF	93	Design	2	6.0
Forest Wide	Species Land Use Effects (Design/Sampling)	NFWF	93	Design	2	5.5
Forest Wide	Exclosures/Range Effects (First Year Sampling)	NFRG	93	Sampling	1	1.8
Forest Wide	Native Plant Rehabilitation Projects for Erosion Control and Stabilization	NFSW	93	Acres	2	1.0
Forest Wide	Native Plant Rehabilitation Projects for Recreation Sites (Propogation)	NFRN	93	Project	1	1.0

**BOTANICAL RESOURCES (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Forest Wide	Habitat Improvements for Specific Species (Propogation)	NFWF	93	Acres	5	7.0
Forest Wide	Photoherbarium	NFWF	93	Improve	4	0.5
Forest Wide	GIS Implementation (Data Entry)	NFWF	93	Implement	1	4.0
Forest Wide	Type Localities Designation (Literature and Field Search)	NFWF	93	Search	1	0.5
Forest Wide	Potential RNA Cells/Sites Inventory (Final Prioritization and Report)	NFWF	93	Report	1	2.0
Forest Wide	FP Monitoring - Sensitive Plants	NFWF	93	Sampling	5	4.5
Forest Wide	FP Monitoring - RNAs	NFWF	93	Sampling	3	1.2
Forest Wide	FP Monitoring - Biological Diversity	NFWF	93	Report	1	5.4
Forest Wide	SMGs Monitoring	NFWF	93	Sampling	4	4.0
Applegate	Dreamboat TS CYFA Monitoring	CWKV	93	Sampling	1	0.5
Applegate	Butte Compartment Survey	NFWF	93	Acres	9102	13.6
Applegate	Botanical Area Management Plans	NFRN	93	Plan	2	3.0
Applegate	Botanical Area Trail Construction - Dutchman, Craggy	CNTR	93	Mile	2	10.0
Applegate	Botanical Area Interpretive Signs	CNRF	93	Signs	2	1.0
Applegate	RNA Cell Maintenance - Oliver Matthews	NFWF	93	Acres	15	6.0
Applegate, Ashland	Botanical Area Monitoring (Survey/Design/ Sampling)	NFWF	93	Survey	3	1.0
Ashland	Botanical Area Species/Communities Inventory	NFWF	93	Area	1	3.0
Ashland	RNA Establishment Reports - Red Mountain	NFWF	93	Report	1	1.0
Ashland, Applegate	Botanical Areas Guide Booklet (Final Version)	NFRN	93	Plan	1	3.0
Prospect, Butte Falls	Checklists/Brochures	FWF	93	Report	2	1.0
Forest Wide	Species Status Reports/Surveys	NFWF	94	Report	2	8.0
Forest Wide	SMGs	NFWF	94	Plan	4	8.0
Forest Wide	Taxonomic Studies	NFWF	94	Report	1	6.0
Forest Wide	T,E&S Species Surveys Outside of Sale Areas	NFWF	94	Acres	1500	3.0
Forest Wide	Species Ecological Investigations (Design/ Sampling)	NFWF	94	Design	1	2.0
Forest Wide	Species Land Use Effects (Design/Sampling)	NFWF	94	Design	2	6.0
Forest Wide	Exclosures/Range Effects (First Year)	NFRG	94	Sampling	1	0.8
Forest Wide	Native Plant Rehabilitation Projects for Erosion Control and Stabilization (Propogation)	NFSW	94	Acres	2	2.5
Forest Wide	Habitat Improvements for Specific Species (Propogation)	NFWF	94	Improve	1	3.0
Forest Wide	Photoherbarium	NFWF	94	Improve	4	0.5
Forest Wide	GIS Implementation (Data Entry)	NFWF	94	Implement	1	2.0
Forest Wide	Center for Plant Conservation Seedbanking	NFWF	94	Species	5	2.5
Forest	Type Localities Designation (Plan and Mapping Search)	NFWF	94	Search	1	1.0

**BOTANICAL RESOURCES (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Forest Wide	FP Monitoring - Sensitive Plants	NFWF	94	Sampling	5	4.5
Forest Wide	FP Monitoring - RNAs	NFWF	94	Monitor	3	2.0
Forest Wide	FP Monitoring - Biological Diversity	NFWF	94	Review	1	1.0
Forest Wide	SMGs Monitoring (Design/Sampling)	NFWF	94	Sampling	6	6.0
Applegate	Dreamboat TS CYFA Monitoring (Sampling/Report)	CWKV	94	Sampling	1	0.8
Applegate	Pond TS RIMA Monitoring	CWKV	94	Sampling	1	0.5
Applegate	Obrien Compartment Survey	NFWF	94	Acres	4733	7.1
Applegate	Botanical Area Species/Communities Inventory	NFWF	94	Area	1	3.0
Applegate	Botanical Area Interpretive Signs	CNRF	94	Signs	2	1.0
Applegate	Botanical Area Habitat Improvements (Propogation)	NFWF	94	Improve	1	2.0
Applegate	Botanical Area Fencing - Dutchman, Observation Peak	NFWF	94	Miles	1	8.0
Applegate, Ashland	Botanical Area Trail Construction - Dutchman, Craggy	CNTR	94	Mile	1.5	6.0
Applegate, Ashland	Botanical Area Monitoring (Survey/Design/Sampling)	NFWF	94	Survey	3	1.0
Ashland	Botanical Area Management Plans	CNTR	94	Plan	2	2.0
Forest Wide	Species Status Reports/Surveys	NFWF	95	Report	1	4.0
Forest Wide	SMGs	NFWF	95	Plan	4	8.0
Forest Wide	Species Ecological Investigations (Design/Sampling)	NFWF	95	Design	1	2.0
Forest Wide	Species Land Use Effects (Design/Sampling)	NFWF	95	Design	3	6.0
Forest Wide	Exclosures/Range Effects	NFRG	95	Sampling	2	1.6
Forest Wide	Native Plant Rehabilitation Projects for Recreation Sites (Propogation)	NFRN	95	Acres	1	2.5
Forest Wide	Habitat Improvements for Specific Species (Propogation)	NFWF	95	Acres	4	4.0
Forest Wide	Photoherbarium	NFWF	95	Improve	4	0.5
Forest Wide	Checklists/Brochures	NFWF	95	Report	2	1.0
Forest Wide	Noxious Weed Control	NFRG	95	Acres	5	2.0
Forest Wide	FP Monitoring - Sensitive Plants	NFWF	95	Sampling	5	4.5
Forest Wide	FP Monitoring - RNAs	NFWF	95	Area	3	2.4
Forest Wide	FP Monitoring - Biological Diversity	NFWF	95	Report	1	1.4
Forest Wide	SMGs Monitoring (Design/Sampling)	NFWF	95	Design	8	8.0
Applegate	Abney Compartment Survey	NFWF	95	Acres	5480	8.2
Applegate	Botanical Area Species/Communities Inventory	NFWF	95	Area	1	3.0
Applegate, Ashland	Botanical Area Trail Construction	CNTR	95	Mile	1.5	7.0
Applegate, Ashland	Botanical Area Trail Maintenance	NFTR	95	Miles	3	3.0
Applegate, Ashland	Botanical Area Interpretive Signs	CNRF	95	Signs	2	1.0

**BOTANICAL RESOURCES (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Applegate, Ashland	Botanical Area Monitoring (Survey/Design/Sampling)	NFWF	95	Survey	3	1.0
Butte Falls	RNA Establishment Reports - Wickiup Springs	NFWF	95	Report	1	1.0
Prospect	RNA Fencing- Sherwood	NFWF	95	Mile	1	8.0
Forest Wide	Species Status Reports/Surveys	NFWF	96	Report	2	8.0
Forest Wide	SMGs	NFWF	96	Plan	4	8.0
Forest Wide	Taxonomic Studies	NFWF	96	Report	1	2.0
Forest Wide	T,E&S Species Surveys Outside of Sale Areas	NFWF	96	Acres	1500	3.0
Forest Wide	Species Ecological Investigations (Design/Sampling)	NFWF	96	Design	3	6.0
Forest Wide	Species Land Use Effects (Design/Sampling)	NFWF	96	Design	3	6.0
Forest Wide	Exclosures/Range Effects	NFRG	96	Sampling	2	1.6
Forest Wide	Habitat Improvement for Specific Species (Propagation)	NFWF	96	Acres	8	8.0
Forest Wide	Photoherbarium (Revision)	NFWF	96	Report	1	1.0
Forest Wide	Sensitive Plant Field Guide (Upgrade)	NFWF	96	Plan	1	0.8
Forest Wide	Center for Plant Conservation Seedbanking	NFWF	96	Species	5	2.5
Forest Wide	FP Monitoring - Sensitive Plants	NFWF	96	Sampling	10	4.5
Forest Wide	FP Monitoring- RNAs	NFWF	96	Area	3	0.8
Forest Wide	FP Monitoring - Biological Diversity	NFWF	96	Report	1	8.0
Forest Wide	SMGs Monitoring (Design/Sampling)	NFWF	96	Design	10	10.0
Applegate	Pond TS RIMA Monitoring	CWKV	96	Sampling	1	0.5
Applegate	Relocate and Mark Populations	NFWF	96	Marks	10	1.7
Applegate	Joe Compartment Survey	NFWF	96	Acres	4977	7.5
Applegate	Botanical Area Species/Communities Inventory	NFWF	96	Area	1	3.0
Applegate, Ashland	Botanical Area Interpretive Signs	CNRF	96	Signs	2	1.0
Applegate, Ashland	Botanical Area Habitat Improvements	NFWF	96	Acres	20	10.0
Applegate, Ashland	Botanical Area Monitoring (Survey/Design/Sampling)	NFWF	96	Survey	3	1.0
Ashland, Applegate	Botanical Area Management Plans	NFRN	96	Plans	2	2.0
Forest Wide	Species Status Reports/Surveys	NFWF	97	Report	1	4.0
Forest Wide	SMGs	NFWF	97	Plans	4	8.0
Forest Wide	Taxonomic Studies	NFWF	97	Report	1	6.0
Forest Wide	Species Ecological Investigations (Design/Sampling)	NFWF	97	Design	3	4.0
Forest Wide	Species Land Use Effects (Design/Sampling)	NFWF	97	Design	3	6.0
Forest Wide	Exclosures/Range Effects	NFRG	97	Sampling	3	2.6
Forest Wide	Native Plants Rehabilitation Projects for Erosion Control and Stabilization	NFSW	97	Acres	1	1.0
Forest Wide	Native Plants Rehabilitation Projects for Recreation Sites	NFRN	97	Acres	1	1.0

**BOTANICAL RESOURCES (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Forest Wide	Habitat Improvements for Specific Species (Propagation)	NFWF	97	Acres	4	3.0
Forest Wide	Photoherbarium (Update)	NFWF	97	Report	4	0.5
Forest Wide	Checklists/Brochures	NFWF	97	Report	2	1.0
Forest Wide	Botanical Area Species/Communities Inventory	NFWF	97	Area	1	3.0
Forest Wide	RNA and Botanical Area- New Candidates Review (Field Surveys)	NFWF	97	Surveys	3	1.0
Forest Wide	FP Monitoring - Sensitive Plants	NFWF	97	Sampling	5	4.5
Forest Wide	FP Monitoring- RNAs	NFWF	97	Area	3	1.2
Forest Wide	FP Monitoring - Biological Diversity	NFWF	97	Report	1	12.4
Forest Wide	SMGs Monitoring (Design/Sampling)	NFWF	97	Design	10	10.0
Applegate	Dutch Compartment Survey	NFWF	97	Acres	9603	14.4
Applegate	Botanical Area Trail Construction - Whiskey Peak	CNTR	97	Miles	1.5	8.0
Applegate	RNA Fencing- Oliver Matthews	NFWF	97	Miles	2	12.0
Applegate, Ashland	Botanical Area Interpretive Signs	CNRF	97	Signs	2	1.0
Applegate, Ashland	Botanical Area Monitoring (Survey/Design/Sampling)	NFWF	97	Survey	3	1.0
Ashland	Botanical Area Fencing - Red Mountain	NFWF	97	Miles	1	7.0
Butte Falls	Butte Falls Herbarium Improvements	NFWF	97	Collection	1	1.0
Forest Wide	Species Status Reports/Surveys	NFWF	98	Report	2	8.0
Forest Wide	Species Management Guides (SMGs)	NFWF	98	Plans	4	8.0
Forest Wide	T,E&S Species Surveys Outside of Sale Areas	NFWF	98	Acres	1500	3.0
Forest Wide	Species Ecological Investigations	NFWF	98	Sampling	3	2.0
Forest Wide	Species Land Use Effects (Design/Sampling)	NFWF	98	Design	3	6.0
Forest Wide	Exclosures/Range Effects	NFRG	98	Sampling	1	1.6
Forest Wide	Native Plants Rehabilitation Projects for Erosion Control and Stabilization	NFSW	98	Acres	1	1.0
Forest Wide	Native Plants Rehabilitation Projects for Recreation Sites	NFRN	98	Acres	1	1.0
Forest Wide	Habitat Improvements for Specific Species (Propagation)	NFWF	98	Acres	4	4.0
Forest Wide	Photoherbarium (Updates)	NFWF	98	Report	4	0.5
Forest Wide	GIS Implementation (Update)	NFWF	98	Implement	1	1.0
Forest Wide	Center for Plants Conservation Seedbanking	NFWF	98	Species	5	2.5
Forest Wide	Noxious Weed Control	NFRG	98	Acres	5	2.0
Forest Wide	Botanical Area Species/Communities Inventory	NFWF	98	Area	1	3.0
Forest Wide	RNA and Botanical Area - New Candidates Review (Field)	NFWF	98	Surveys	3	1.0
Forest Wide	Potential RNA Cells/Sites Inventory (Review of Potential Sites for 10-Year Plans)	NFWF	98	Review	1	1.0
Forest Wide	FP Monitoring - Sensitive Plants	NFWF	98	Sampling	5	4.5



10-YEAR ACTIVITY SCHEDULES

**BOTANICAL RESOURCES (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Forest Wide	FP Monitoring - RNAs	NFWF	98	Areas	3	2.0
Forest Wide	FP Monitoring - Biological Diversity	NFWF	98	Report	1	5.0
Forest Wide	SMGs Monitoring (Design/Sampling)	NFWF	98	Design	12	12.0
Applegate	Studhorse Compartment Survey	NFWF	98	Acres	5391	8.1
Applegate	Botanical Area Management Plans	NFRN	98	Plans	2	2.0
Applegate, Ashland	Botanical Area Interpretive Signs	CNRF	98	Signs	2	1.0
Applegate, Ashland	Botanical Area Monitoring (Survey/Design/Sampling)	NFWF	98	Survey	3	1.0
Ashland	Botanical Area Habitat Improvements - Red Mountain	NFWF	98	Acres	10	10.0
Ashland, Applegate	Botanical Area Trail Maintenance	NFTR	98	Miles	3	2.5
Forest Wide	Species Status Reports/Surveys	NFWF	99	Report	1	4.0
Forest Wide	SMGs	NFWF	99	Plans	4	8.0
Forest Wide	Taxonomic Studies	NFWF	99	Report	1	2.0
Forest Wide	Species Ecological Investigations	NFWF	99	Sampling	4	2.0
Forest Wide	Species Land Use Effects (Design/Sampling)	NFWF	99	Design	3	6.0
Forest Wide	Exclosures/Range Effects	NFRG	99	Sampling	1	1.6
Forest Wide	Native Plants Rehabilitation Projects for Recreation Sites (Propagation)	NFRN	99	Acres	1	2.5
Forest Wide	Habitat Improvements for Specific Species	NFWF	99	Acres	10	8.0
Forest Wide	Photoherbarium (Update)	NFWF	99	Report	4	0.5
Forest Wide	Sensitive Plants Field Guide (Update)	NFWF	99	Report	1	1.0
Forest Wide	Checklists/Brochures	NFWF	99	Report	2	1.0
Forest Wide	Botanical Area Species and Communities Inventory	NFWF	99	Area	1	3.0
Forest Wide	RNA and Botanical Area- New Candidates Review (Field Surveys)	NFWF	99	Surveys	3	1.0
Forest Wide	FP Monitoring - Sensitive Plants	NFWF	99	Sampling	5	4.5
Forest Wide	FP Monitoring- RNAs	NFWF	99	Area	3	2.4
Forest Wide	FP Monitoring- Biological Diversity	NFWF	99	Report	1	1.4
Forest Wide	SMGs Monitoring (Design/Sampling)	NFWF	99	Design	12	12.0
Applegate	Miller Compartment Survey	NFWF	99	Acres	1854	2.8
Applegate	Botanical Area Trail Construction - White Mountain	CNTR	99	Miles	1.5	8.5
Applegate, Ashland	Botanical Area Interpretive Signs	CNRF	99	Signs	2	1.0
Applegate, Ashland	Botanical Area Monitoring (Survey/Design/Sampling)	NFWF	99	Survey	3	1.0
Ashland	RNA Cell Maintenance	NFWF	99	Acres	40	8.0
Ashland, Applegate	Botanical Area Trail Maintenance	NFTR	99	Miles	2	1.5

## TIMBER SALE PROGRAM

Sale Name	Sale Number	Management Area	Legal Description	Acres	MMBF	Harvest Method 1/	Road C	Miles R	Harvest System
90 Salvage & Small	0101	6,7,8,9,14,20,21	District Wide	1000	1.05	HSV			C,T
Pond	0102	20	T40S,R5W,S19,20,WM	29	.16	HOR			T
Camp 19	0103	14,20,21	T40S,R2W,S19 T40S,R3W,S13,24,WM	232	3.31	HOR,HSV	3.7	4.7	T,S
Xmas Fire Salvage	0104	6,7,8,9,14,20,21	T40S,R2W,S27,WM	23	.81	HOR,HSV			T,S
Lakes Salvage	0105	6,7,8,9,14,20,21	T41S,R3W,S2,3,5,WM	266	.18	HSV			T
Carson Salvage	0106	6,7,8,9,14,20,21	T40S,R5W,S1,12,13,WM	180	.10	HSV			T
Fruit	0107	21	T48N,R10W,S19,20,29, 30,WM	127	1.44	HCC,HSH,HFR	.2	.7	S,T,MS
Fruit Fly	0108	21	T40N,R10W,S28,WM	501	4.50	HPR,HF			H
Haley Salvage	0109	6,7,8,9,14,20,21	T40S,R3W,S3,4,11,14,12,WM	532	.56	HSV			T
Dark Salvage	0110	6,7,8,9,14,20,21	T40S,R4W,S1,2,3,13,14,WM	300	.25	HCC,HSV			T,MS
Zip Salvage	0111	6,7,8,9,14,20,21	T40S,R1W,S17,18,19,WM	500	.20	HCC,HSV			T,MS
Cole Slaw Salvage	0112	6,7,8,9,14,20,21	T40S,R2W,S28,29,32,30,WM	500	25	HSV			T
Placer Salvage	0113	6,7,8,9,14,20,21	T40S,R5W,S26,32,33,34,WM	600	30	HSV			T,MS
Weedhopper	0201	20	T37S,R4E,S2,3,10,11, T36S,R4E,S35,36,WM	253	2.33	HCC,HSV	6		T
Helikopter	0202	7,9,21	T39S,R1E,S19,20,21,27-35, T40S,R1W,S4,5,WM	5270	9.20	HSC,HSV,HFR	.2	.5	H,T
Cabbage Patch	0203	20,21	T39S,R1W,S32,33,34, T40S,R1W,S3,4,5,WM	231	3.66	HCC,HSC	2.0		S
Misc/Salvage	0204	20	T37S,R3&4E,WM		1.31	HSV			T
Bear Thin	0301	14,20	T33S,R4E,S33,34,34,WM	235	2.70	HTH	0.5		T
Filbert	0302	14	T35S,R4E,S6,7,WM	51	1.30	HSH			T
Bully	0303	20,23	T36S,R3E,S9,WM	69	1.40	HCC,HTH,HSH			T
Lake	0304	14	T35S,R3E,S34,WM	71	1.30	HSH,HTH	0.3	0.5	T
Twin Pine	0305	23	T35S,R4E,S32,34,WM	86	1.10	HCC,HFR			T
Zimmer	0306	14	T33S,R4E,S17,18,19,20,29,30,31, 32,33,WM,T34S,R4E,S5,6,WM	789	11.80	HCC,HSH,HFR			T,S
Spot	0307	14,23	T35S,R4E,S8,17,4,9,WM	303	2.10	HSH,HTH			T
Daha	0308	14	T33S,R4E,S7,8,9,18,WM	220	4.70	HSH			T

10-YEAR ACTIVITY SCHEDULES

**TIMBER SALE PROGRAM (continued)**

Sale Name	Sale Number	Management Area	Legal Description	Acres	MMBF	Harvest Method 1/	Road C	Miles R	Harvest System
Garfield	0309	14,20	T34S,R4E,S5,6,8,WM	161	2 70	HCC,HSH,HSV,HFR			T
Snuffy	0310	20	T34S,R4E,S21,22,27,28,34,WM	257	8.00	HCC,HSH			T
Cat Thin	0311	20	T34S,R4E,S33,34,WM	66	1 20	HCC,HSH,HTH	0 5		T
Jupiter	0312	14	T34S,R4E,S32,WM,T35S,R4E,S5,6,WM	312	3 50	HCC,HTH,HSH,HFR			T,S
Summit	0313	14	T34S,R2E,S1,16,WM	118	2.50	HCC,HSH,HTH,HFR			T
Blue	0314	23	T35S,R4E,S13,14,WM	469	4.30	HFR		0 1	T
Fork	0601	6,7,9,16,20	T28S,R4E,S27,33,34,35,T29S,R4E,S3,4,WM	144	2 63	HFR			T
Sun Period	0602	20	T31S,R2E,T31S,R2E,S3,9,10,15,16,WM	225	2 47	HFR			T,S
Ham	0603	20	T29S,R4E,S11,WM	24	0.80	HSC			T
Fos	0604	20	T29S,R3E,S13,14,T29S,R4E,S19,WM	101	2.89	HCC		3	T,S
River Way	0606	20	T31S,R3E,S9,16,T32S,R3E,S17,WM	83	0.64	HFR,HSH			T
Glad	0607	20	T29S,R3E,S11,12,14,T29S,R4E,S18,19,WM	77	0.86	HFR			T
Whiskey	0608	6,20,23	T30S,R3E,S25 T30S,R4E,S29,WM	71	0.74	HFR			T
Butch	0609	20	T29S,R4E,S13,15,22 T29S,R5E,S18,19,WM	150	6 96	HCC,HSH	1.5		T,S
Varmit	0610	20,21	T32S,R4E,S1,2,11, T32S,R4E,S36,WM	203	8 53	HCR,HFR	3.2		T,S
Dart	0611	14	T33S,R1W,S32,WM	125	2 54	HCC	.9		T,S
East	0612	20	T31S,R4E,S2,3,10,11, 13,14,23,24,WM	236	6 85	HFR,HCC	2.1		T,S
Smoke	0613	20	T31S,R4E,S31,32,T32S,R4E,S5,6,WM	186	2 70	HCC,HFR,HSH,HTH			T
Little Flat	0614		T31S,R3E,S10,WM	28	0 55	HFR			T
Bull	0615	20	T31S,R3E,S15,22,WM	66	1 06	HFR			T
Ear	0616	16,20,21	T30S,R3E,S3,T29S,R3E,S27,33,34,WM	120	4 13	HCR,HTH,HFR	1 3	3	T,S

## TIMBER SALE PROGRAM (continued)

Sale Name	Sale Number	Management Area	Legal Description	Acres	MMBF	Harvest Method 1/	Road C	Miles R	Harvest System
Nine	0617	14,20,2	T31S,R2E,S28,29,31,32,33,WM	263	3.66	HCC,HFR			T,S
Jaw	0618	14,20,21	T33S,R1W,S13,WM	160	4.00	HCR	2.0		S
Ace	0619	20,21	T31S,R2E,S5,7,8,17,18,WM	103	3.54	HCR	0.3	0.7	T,S
Seven Licks	0620	14,20,21	T32S,R4E,S4,8,9,10,16,17,18,WM	395	12.40	HFR,HCC,HCR	3.4	3.0	T,S
Salvage & Fuelwood	0621	-	District Wide	1000	2.50	HSV			T
91 Salvage & Small	1101	6,7,8,9,14,20,21	District Wide	1000	2.40	HSV			C,T
Wings	1102	14,20	T40S,R4W,S19,30,WM	70	1.50	HCC,HOR			H
Big Rock	1103	6,20,21	T48N,R9W,S30,31,WM	153	2.00	HFR,HSH			T,S
Pearce Gulch	1104	20,21	T41S,R2W,S7,8,WM	90	4.30	HFR	5.0		T,S
Cougar Gap	1105	20,21	T41S,R5W,S1,2,12,WM	102	5.00	HFR	3.6	4	T,S
Frog Salvage	1106	6,7,8,9,14,20,21	T48N,R12W,S21,27,WM	300	20	HSV			T
Red Dog	1107		T40S,R1W,S19,30,T40S,R2W,S13,24,WM	194	2.60	HSH,HOR,HSV	.9		T,S
Knobcone Overstory	1108	20,21	T40S,R5W,S31,32,33,WM	250	1.50	HFR			T,S
Springboard	1201	6,20	T38S,R4E,S6,WM	80	2.01	HCC,HFR	1.3		T
Utopia	1202	6,20	T37S,R4E,S21,22,26,27,WM 149	4.20	HSH				T
Deejay	1203	6	T38S,R4E,S5,WM	88	1.71	HCC,HSC,HSH	.97		T
Fishead	1204	6,20	T38S,R4E,S1,T38S,R5E,S6,WM	131	1.05	HSH,HSC,HSV			T
14-Two	1205	6,20,21	T40S,R1E,S11,14,15,22,WM	180	2.10	HCC,HSC, HSH,HFR	1.3		T,S
Section 27	1206	16,20,21	T40S,R1W,S 27,WM	89	2.48	HCC,HSC, HFR,HSH	96	15	T,S
Misc/Salvage	1207	20	T37S,R3&4E,WM	-	1.00	HSV			T
Neptune	1301	14,20	T34S,R4E,S2,3,11,WM	290	3.00	HSH,HFR			T
Keyhole	1302	20	T34S,R4E,S35,36,WM,T35S,R4E ,S2,WM	88	2.90	HCR	0.1	0.5	T
Jill	1303	14	T36S,R3E,S25,WM	78	1.80	HFR,HCC, HTH,HFR		1.4	T
Green Twin	1304	14	T33S,R4E,S21,22,26,27,28,WM	180	4.00	HFR,HSH	0.4		T
Tasha	1305	20	T33S,R4E,S26,35,36	305	3.90	HCC,HSH,HTH			T

10-YEAR ACTIVITY SCHEDULES

TIMBER SALE PROGRAM (continued)

Sale Name	Sale Number	Management Area	Legal Description	Acres	MMBF	Harvest Method 1/	Road C	Miles R	Harvest System
Fell	1306	14	T33S,R4E,S17,20,21,WM	80	3.00	HCC,HSH			T
Loop	1601	20	T29S,R4E,S11,12,13,T29S,R5E,S7,WM	250	2.00	HFR,HCC			T
Silver	1602	20	T30S,R4E,S31,32,33,T31S,R4E,S3,4,5,6,9,10,WM	253	3.00	HTH,HSC			T,S
Mead	1603	20	T29S,R4E,S1,2,11,T29S,R5E,S6,WM	83	2.50	HFR,HSH,HCC,HCR	0.3		T,S
Finecurb	1604	20	T32S,R4E,S35,35,T33S,R4E,S1,2,WM	225	4.20	HCC,HFR,HTH	0.3		T,S
Finger	1605	20	T29S,R3E,S31,23,26,27,34,35,36,T30S,R3E,S6,WM	56	2.50	HCC	0.9		S
Turlock	1607	20	T30S,R3E,S15,22,27,34,WM	180	3.00	HFR		5	C,T,S
Tan	1608	14,20	T29S,R4E,S24,25,T29S,R5E,S19,WM	165	1.00	HFR,HSH			T
Pine	1609	14	T31S,R3E,S1,T30S,R3E,S36,T30S,R4E,S31,WM	137	1.50	HSV,HTH			T
Hip	1610	14,20	T31S,R4E,S26,27,28,29,30,34,35,WM	230	6.00	HCC,HCR,HTH	1.5		T,S
Rotor EZ	1611	14,20,21	T32S,R5E,S6,7,18,T32S,R4E,S1,2,11,12,14WM	300	8.00	HCR,HCC		1.0	H
Branch	1612	14,20	T33S,R1W,S1,12,11,10,WM	145	5.40	HCC,HSH	3.5	5	S
Abate	1613	20	T31S,R4E,S35,WM	70	.50	HFR			
Doz	1614	20,21	T32S,R2E,S2,11,3,WM	112	5.37	HCC	7	5.7	S
Crate	1615	20,21	T29S,R4E,S31,T30S,R4E,S2-4,10T29S,R5E,S314,WM	135	4.64	HCC	2.0	.5	T
Land	1616	20,24	T30S,R4E,S13,14,24,T30S,R5E,S7,18,WM	158	5.51	HCC,HFR	3.5	2.5	T
Obie l	1617	15,20,21	T31S,R1E,S20,28,29,32,33,34,WM	161	6.22	HCC	99	1.46	T,S
Salvage & Fuelwood	1618		District Wide	1000	1.50				T
92 Salvage and Small	2101	6,7,8,9,14,20,21	District Wide	1000	2.20	HSV			C,T
Bearwallow OS	2102	20,21	T41S,R4W,S7,WM	200	1.50	HSH	1.8		S
Grubout	2103	20,21	T41S,R2W,S3,4,8,9,16,WM	250	2.80	HSH,HFR		.5	T,S
Lower Summit	2104	20,21	T41S,R3W,S2,5,9,10,WM	250	5.00	HFR	7.0	5.5	T,S

## TIMBER SALE PROGRAM (continued)

Sale Name	Sale Number	Management Area	Legal Description	Acres	MMBF	Harvest Method 1/	Road C	Miles R	Harvest System
Knutson	2105	9,14,21	T48N,R10W,S19,20,WM	75	3.00	HCC	2.0		T,S
Upper O'Connel	2106	20,21	T40S,R5W,S33,T41S,R5W,S4,8,9,17,WM	125	5.00	HCC,HSH	3.0	1.5	T,S
North Red Mountain	2201	20,21	T40S,R1W,S21,WM	106	5.20	HCC	2.7		S
Pentagon	2202	9,20	T39S,R3E,S1,11,12,T37S,R4E,S6,7,WM	135	4.50	HCC,HFR,HSV	1.50		T,S
Indian Charley	2203	20,21	T37S,R3E,S21,28,33,34,WM	200	4.60	HCC,HSH,HTH	2.0		T,S
Misc/Salvage	2204	20	T37S,R3&4E,WM	1.00	HSV				T
Sandpiper	2301	7,14,23	T35S,R3E,S26,27,34,35,36,T36S,R3E,S2,3,WM	403	2.60	HCC,HTH	0.8		T
Tibbets	2302	6,14,20	T36S,R3E,S27,35,WM	120	2.10	HSH,HFR,HTH,HSC		0.2	T
Willie	2303	20	T33S,R4E,S13,23,24,WM	158	5.20	HCC,HFR	0.6		T,S
Arrow	2304	14	T36S,R3E,S5,9,WM	311	1.60	HTH,HFR	0.5		T,S
Noman Loop	2305	23	T36S,R4E,S8,WM	50	1.00	HSH			T
Head	2306	14,20	T33S,R4E,S1,2,3,10,11,12,WM	240	6.10	HCC,HSH,HTH,HFR	0.6	0.7	T,S,H
Top Change	2601	6,20	T31S,R4E,S12,13,7,8,9,16,17,18,WM	350	3.00	HSH,HCR,HFR,HTH		1.0	T
ZZ Top	2602	20	T31S,R3E,S5,7,8,17,18,19,WM	300	1.50	HFR			T
Miser	2603	20	T29S,R4E,S33-36,T30S,R4E,S2,3,4,10,11,WM	140	2.00	HFR			T
Shalie	2604	14,20,21	T31S,R4E,S28,32,33,34,T32S,R4E,S3,4,WM	260	8.00	HCC,HTH	2.0	2.0	T,S
Jack	2605	20	T31S,R4E,S11,14,15,22,23,26,WM	200	5.00	HCC,HSH,HTH		1.0	T,S
Master	2606	20,21	T32S,R4E,S15-21,WM	150	6.00	HSH	2.3	1.0	S
Sky	2607	6,7,20	T31,R4E,S3,T30S,R4E,S28,T30S,R3E,S25,WM	280	3.00	HCC,HSH,HFR			T
Mule	2608	20	T32S,R4E,S33,34,WM	60	2.00	HFR			T
Trigger	2609	20	T30S,R4E,S32-34,WM	85	1.00	HCC	1.0		T,S
Nee	2610	11,20	T31S,R3E,S30,31,T31S,R2E,S25,26,WM	150	2.90	HFR			T,S,C
Minne	2611	20	T29S,R4E,S25,26,30,WM	230	6.00	HFR,HCC,HTH	2.5	2.0	S,C

10-YEAR ACTIVITY SCHEDULES

**TIMBER SALE PROGRAM (continued)**

Sale Name	Sale Number	Management Area	Legal Description	Acres	MMBF	Harvest Method 1/	Road C	Miles R	Harvest System
Cloudy	2612	20	T31S,R2E,S33-34, WM	60	2.00	HCC	5		S,C
View	2613	14,20,21	T31S,R1E,WM	180	6.00	HCC, HSH HCR, HTH	3.0	2.0	S,C
Stir	2614	20,21	T29S,R3E,S11-14, 23,24,T29S,R4E, S18,19,30,WM	200	1.0	HCC, HSH HFR	3.3	1.0	S,C
Step	2615	20	T31S,R3E,S5,6,WM	180	1.80	HFR			T,S,C
Mistle	2616	20	T30S,R3E,S22,23, 26,27,34,35,WM	85	2.00	HCC,HFR			S,C
Cob	2617	20	T30S,R4E,S7,8,14, 15,16,23,WM	300	1.14	HFR			T
Leg	2618	20,21	T31S,R2&3,WM	300	5.2	HCC,HCR, HFR,HTH	8	1.0	C,T,S
Brush	2619	14,20,21	T31S,R1W&R1W,WM	100	3.00	HCC, HSH, HCR,HFR	.5	1.0	S,C
Salvage & Fuelwood	2620	All	District Wide	1.50		HSV			T,C
93 Salvage & Small	3101	6,7,8,9,14,20,21	District Wide	1000	2.00	HSV			C,T
Pony	3102	14,20	T40S,R4W,S32,33, WM	100	4.00	HCC, HSH	5.5	1.0	T,S
South O'brian	3103	20,21	T40S,R5W,S9,10,11 ,15,WM	80	3.00	HCC, HSH	3.0	1.0	S
Carlton Pasture	3104	14,20	T41S,R3W,S9,11,15 ,WM	150	1.50	HCC, HSH	2.0		S,T,H
Sky King	3105	7,20	T40S,R4W,S6,WM	200	3.00	HCC, HSH	1.0		S,T,H
Copper King	3106	17,20,21	T47N,R11W,S23,26 ,27,34,35,WM	100	1.00	HCC,HFR		.5	S,T,H
9 Cougars	3107	20,21	T41S,R4W,S9,16, WM	200	5.00	HSH	1.5	1.5	S,T,H
Brush Thin	3201	9,20	T38S,R4E,S23,24, WM	205	1.70	HTH	6		T,S
Round Robin	3202	6,20	T37S,R4E,S7,8,9, 16,17,18,WM	275	2.20	HFR,HCC HSC			T
Dallas	3203	20	T37S,R4E,S29,32, WM	41	3.20	HCC,HSC			T,S
Farout	3204	6,20	T37S,R5E,S20,21, 28,29,WM	55	1.00	HSH			T
Horn Gulch	3205	7,9,21,23	T39S,R1E,S19,30, T39S,R1W,S25, 26,35,WM	250	5.50	HCC,HSC	2.8	1.2	T,S
Misc/Salvage	3206	20	T37S,R3&4E,WM		1.00	HSV			T
North Thin	3301	14,20	T33S,R4E,WM	592	5.10	HTH			T,S

## TIMBER SALE PROGRAM (continued)

Sale Name	Sale Number	Management Area	Legal Description	Acres	MMBF	Harvest Method 1/	Road C	Miles R	Harvest System
Umpire Regen	3302	23	T35S,R3E,S36,WM T35S,R4E,S31, T36S,R4E,S6,WM	274	3.20	HCC, HSH HTH	0.4		T
Dale	3303	20	T34S,R4E,S26,35, WM	122	4.30	HSH			T
Moe	3304	20	T34S,R4E,S14,15, 22,23,WM	222	5.00	HCC, HSH	0.8		T,S
Military	3305	23	T35S,R4E,S9,10,15,WM	278	1.00	HSH, HTH	0.5		T,S
Mammoth	3601	6,11,14,20	T31,R3,R4E,WM	230	7.00	HCC, HFR HSH, HTH HCR			S,C,T
Nelk	3602	14,20	T32S,R3E,S5,6,T30S,R3E, S29-32,WM	125	5.00	HCC	2.5		C
Mast	3603	9,16,20	T30S,R3E,S1,2,11,12,13,14,22, 23,WM	330	4.00	HFR	2.5	1.0	T
Sink	3604	6,7,14,20,23	T31,R3&4E,WM	380	11.50	HCC, HFR HSH, HTH HCR	2.0	3.0	S,C,T
Ryeleven	3605	6,7,20,23	T30,R3&4E,WM	330	10.30	HCC, HSH HFR, HTT	5	3.0	S,C,T
Tent	3606	11,14,20,21	T31S,R3E,WM	330	9.20	HCC, HSH HFR	2.5	2.0	S,C,T
Miner	3607	14,20,21	T31S,R2E,WM	170	5.00	HCC, HSH, HCR HTH, HFR	1.5	2.0	S,C,T
Reed	3608	6,11,20,23	T30,R3&4E,WM	200	6.00	HCC, HSH, HFR, HTH	5	2.0	S,C,T
Make	3609	7,8,9,16	T29S,R4E,WM	500	2.50	HSC, HCC, HSH, HFR	1.0		T
Eggs	3610	7,8,9,16	T29S,R4E,WM	450	3.00	HFR, HCC, HCR, HSC		5	T,C
Salvage & Fuelwood	3611	All	District Wide		1.50	HSV			T,C
94 Salvage & Small	4101	6,7,8,9,14,20,21	District Wide	1500	3.70	HSV			C,T
Larkspur Spring	4102	14,20,21	T40S,R5W,S1,3,10,11,WM	100	2.00	HPR, HCC	3.0		T,S
Ivy League	4103	20	T40S,R2W,S15,23,WM	100	1.00	HFR		2	S,T,MS
Grouse Creek	4104	14,20	T40S,R4W,S26,27,34,35WM	268	4.40	HFR	7.6		C,T
Beaver Box	4105	7,20	T40S,R2W,S16,20,WM	50	40	HCC			T,S
Alf	4106	21	T48N,R9W,S18,WM	100	1.00	HCC, HSH	1.0	1.0	T,S



10-YEAR ACTIVITY SCHEDULES

TIMBER SALE PROGRAM (continued)

Sale Name	Sale Number	Management Area	Legal Description	Acres	MMBF	Harvest Method 1/	Road C	Miles R	Harvest System
Dutch	4107	17,20,21	T48N,S11W,S23,24,25,26,WM	200	7.00	HCC,HSH	4.0	0.5	T,S
Fog	4201	6,20	T38S,R4E,S10,14,15,WM	127	2.10	HSH	.7		T
Frosty	4202	20	T37S,R4E,S31,T38S,R4E,S6,WM	118	2.60	HCC	.2		T
Peak Creek	4203	20,21	T37S,R3E,S26,35,WM	122	2.50	HCC,HSH			T,S
Centerstage	4204	20,21,23	T40S,R1W,S15,23,WM	78	2.00	HCC			T,S
Derel	4205	6,9,20	T37S,R3E,S1,2,3,10,11,WM	200	2.50	HCC,HSC	.7		T,S
Misc/Salvage	4206	20	T37S,R3&4E,WM		1.00	HSV			T
Weeping Willie	4301	20	T33S,R4E,S11,12,13,14,23,24,WM	98	2.90	HCC,HSH	0.2		T,S
Bobcat	4302	20	T36S,R4E,S27,34,WM	94	3.50	HCC,HSH	0.4		T
Black Butte	4303	20	T34S,R4E,S8,9,17,WM	128	1.40	HCC,HTH	0.8		T,S
Gin Fizz	4304	23	T36S,R4E,S16,17,WM	75	1.60	HSH	0.2		T
High Ball	4305	14,23	T36S,R4E,S17,18,19,20,21,WM	196	4.20	HSH	0.2		T
Peek A Boo	4306	14,20	T34S,R4E,S3,10,11,14,15,16,WM	146	4.40	HCC,HSH	1.3		T,S
Bod Overstory	4307	14,20	T34S,R4E,S10,WM	90	.60	HFR	0.1		T
Scent	4601	7,20	T28S,R4&5E,WM	300	2.00	HCC,HCR,HFR	1.5		C,T,S
Tub	4602	14,20,21	T31&32,R2,WM	180	5.00	HCC,HSH, HFR,HTH	1.0	1.5	C,T,S
Mount	4603	16,20,21	T29S,R3E,WM	400	11.50	HSH,HCC, HFR,HTH	2.0	3.0	C,T,S
Buckbliff	4604	11,14,20,21,	T31S,R2E,WM	230	5.00	HCC,HCR,HFR	1.0	2.0	C,T,S
Vine	4605	6,11,14,20	T31S,R4E,WM	180	5.50	HCC,HSH, HCR,HSC	1.0	2.0	C,T,S
Rock	4606	6,7,20,23	T30S,R4E,WM	130	3.00	HCC,HSH,HFR			C,T,S
Wella	4607	9,20	T30S,R3E,WM	200	4.00	HSC,HCC, HSH,HFR	1.0	1.5	C,T,S
Kite	4608	11,14	T31&32S,R3E,WM	400	2.00	HSC,HCC,HSH, HFR,HTH			T
Frodo	4609	20,21	T31,R1E,WM	250	7.00	HCC,HCR, HSH,HTH	2.0	2.0	C,S
Mix	4610	14,20,21	T29S,R3E,WM	120	4.20	HFR,HCC,HCR	.5	1.5	C,T,S
Bit	4611	14,20,21	T31S,R1&2,WM	140	5.00	HCC,HSH,HFR, HCR,HTH	1.5	2.0	S,C

## TIMBER SALE PROGRAM (continued)

Sale Name	Sale Number	Management Area	Legal Description	Acres	MMBF	Harvest Method 1/	Road C	Miles R	Harvest System
Ho	4612	14,20,21,24	T32S,R4E,WM	230	5 60	HCR,HCC,HFR	1.0		S,T,C,MS
Bell	4613	20	T29S,R4E,WM	120	4.00	HCC,HCR,HFR	1.0		S,MS,C,T
Salvage & Fuelwood	4614	All	District Wide		1 50	HSV			T,C
95 Salvage and Small	5101	6,7,8,9,14, 20,21	District Wide	1000	1.40	HSV			T,C
Chili	5102	20,21	T41S,R5W,S15,16, T48N,R12W,S19,WM	150	1 00	HFR		1.5	T,S
Squaw Peak	5103	20	T41S,R4W,S9,16, WM	278	1.80	HSH,HFR	1.5		T,S
Blue Bird	5104	14,20,21	T48N,R11W,S22,27, 34,WM	200	3 00	HCC,HSH	0.5	0.5	H,S,T
Iron Mountain	5105	14,20	T40S,R5W,S14,15, 22 WM	278	5.00	HPR,HFR,HCC	5.0	1.0	C,S,T
Newt Gulch	5106	20	T40S,R2W,S31, T41S,R2W,S6 WM T31S,R4W,S7	291	3.30	HCC,HSH	4.7	7.4	T,S
Scotch	5107	20	T41S,R5W,S11,12, 13 WM	150	4.00	HSH,HCC,HFR	1.0	T,S	
Zig Zag	5201	14,20	T37S,R3E,S10,11, 13, 14,15,WM	180	2 50	HCC,HSH	1 2	.8	T,S
Giraffe	5202	20	T37S,R4E,S23,26, WM	70	1.80	HSH			T
Dilly	5203	20	T37S,R4E,S36 T.37S,R5E,S31,WM	167	2 30	HFR			T
Quickdraw	5204	6,20	T38S,R4E,S3,10, WM	120	1 00	HFR,HSC			T
Big Chuck	5205	20,21	T37S,R3E,S28,33, WM	118	1 20	HFR			T
Conde	5206	20	T38S,R3E,S3,WM	44	1 20	HCC			T
Griffin	5207	20	T38S,R4E,S14,23, WM	105	1 20	HSH,HFR			T
Misc/Salvage	5208	20,21	T40S,R1W,WM		1.00	HSV			T,MS
Pluto	5301	14,20	T34S,R4E,S1,2,11 WM, T33S,R4E,S35,36 WM	546	8.40	HCC,HSH, HTH	3.2		T
Barl	5302	23	T36S,R4E,S1,28,WM	78	1 40	HSH			T
Scene	5303	14,20	T34S,R4E,S3,5,10, WM T33S,R4E,S32,33, WM	106	1 90	HSH,HFR	0.4		T
West Blue	5304	23	T36S,R4E,S15,WM	52	0 50	HSH,HTH			T
West Willow Lock	5305 5306	23 20,23	T36S,R3E,S25,35, WM T34S,R4E,S36,WM, T35S,R4E,S2,11,12 13,WM	205 262	2 30 3 60	HSH,HFR HCC,HSH, HTH,HFR	0 7		T,S T,S
Rusty	5307	14	T34S,R4E,S32,WM	95	0 50	HFR			T

10-YEAR ACTIVITY SCHEDULES

**TIMBER SALE PROGRAM (continued)**

Sale Name	Sale Number	Management Area	Legal Description	Acres	MMBF	Harvest Method 1/	Road C	Miles R	Harvest System
Rail	5601	6,14,20,23	T31,R4,WM	300	9.00	HCC,HSH HFR,HCR HTH	1.5	4.0	S,C,T
Neal	5602	20,21	T31,R1&2,WM	210	7.00	HCC,HSH HFR,HCR HTH	3.5	1.0	S,C
Lime	5603	14,20,21	T31,R1,R2,WM	140	4.50	HCC,HSH HFR,HCR HTH	2.0	2.0	S,C
Wooj	5604	14,20,21	T30&31,R2E,WM	150	4.50	HCC,HSH HFR,HCR HTH		2.0	S,C,T
Note	5605	6,14,20	T30S,R4E,WM	250	8.00	HCC,HSH HFR,HCR HTH			T,C
Little John	5606	8,9,11,20, 21	T29S,R4E,WM	200	6.80	HCC,HSH HFR,HCR HTH	1.5		S,C,T
Slim	5607	7,9,11	T30S,R3E,WM	400	2.00	HCC,HSH HFR,HSC			S,C,T
Bud	5608	7,16,20	T28S,R4&5E,WM	200	1.00	HCC,HSH HFR,HSC	1.0		S,C,T
Fat	5609	11,14,23	T31S,R3E,WM	200	1.00	HCC,HSH HFR,HSC			S,C,T
Three	5610	14,20,21	T30&31S,R3E,WM	100	3.00	HCR,HSH, HCR	.5	1.5	MS,S,T,C
Talf	5611	20,21	T30,31S,R3E,WM	230	7.3	HCR,HSH, HCC	1.0	3.0	MS,C,S
Sherwood	5612	8,9	T28S,R4E,WM	400	4.00	HCC,HCR HSC,HTH	1.0		T,MS,C
Back	5613	14,20,21	T30S,R2E,WM	180	6.00	HCC,HCR HSH	1.0	2.0	MS,C,T,S
Salvage & Fuelwood	5614	All	District Wide		1.50	HSV			C,T
96 Salvage & Small	6101	6,7,8,9, 14,20,21	District Wide	1500	2.30				C,T
Quaken Aspen	6102	20,21	T48N,R10W,S22,WM	200	2.00	HCC,HSH	3.0	2.5	T,S
Doe Hollow	6103	14,20	T40S,R3W,S25,26 WM	250	4.20	HCC,HSH	2.5	0.5	T,S
Indian Creek	6104	14,20,21	T41S,R4W,S5 WM	200	2.00	HCC,HFR	1.8	0.8	T,S

## TIMBER SALE PROGRAM (continued)

Sale Name	Sale Number	Management Area	Legal Description	Acres	MMBF	Harvest Method 1/	Road C	Miles R	Harvest System
Donomore Knob	6105	6,17	T41S,R2W,S10,15, T48N,R9W,S20 WM	150	2.00	HSH,HOR	1.0	0.7	T,S
Chappel	6106	20,21	T40S,R2W,S34,35 WM	250	4.00	HCC,HSB	2.0		T,S
Long Glade	6107	20,21	T40S,R1W,S18,19, WM	300	3.00	HCC,HSB HOR	1.0		T,S
Polar	6201	6,20	T37S,R4E,S21,28 ,33,WM	270	3.50	HFR,HSC			T
Vista	6202	7,20,21	T39S,R1E,S34,35, T40S,R1E,S1,2,11 ,WM	145	3.60	HCC,HFR HSB	1.2		T,S
New Wave	6203	20	T37S,R4E,S25,WM	45	.80	HFR			T
Lag	6204	20,21,23	T40S,R1W,S2,3,11 13,WM	185	4.20	HCC,HSC HFR	2.7		T,S
Misc/Salvage	6205	20	T37S,R3&4E,WM		1.00	HSV			T
Odie	6301	20	T34S,R4E,S4,5,8 ,WM	164	1.80	HCC,HSB HFR			T
Vern	6302	20	T34S,R4E,S11,12, 13,24,T34S,R5E, S30,WM	275	2.40	HSB,HFR			T,S
Twin Thin	6303	23	T35S,R4E,S29,30, 31,32,WM	50	0.20	HTH			T
Gar Thin	6304	20	T34S,R4E,S9,16,17 ,WM	139	1.20	HTH			T
Chip	6305	20	T35S,R4E,S2,3,10 ,11,14,15,WM	136	1.40	HCC,HTH			T
Ollie	6306	14	T33S,R4E,S3,4,5,9 ,WM T32S,R4E,S33 ,WM	162	5.60	HCC,HSB HFR			T,H
Tyke	6307	14	T34S,R4E,S29,30, 34,WM	387	2.70	HFR			T
Bits	6308	14,20	T36S,R3E,S28,33 ,35,WM	151	3.30	HSB,HTH		0.4	T,S
Hobble	6601	20	T31S,R3&4,WM	200	6.00	HCC,HSB HFR,HCR HTH	1.0	3.0	S,C,T
Run	6602	6,11,20,23	T30S,R3&4,WM	250	8.00	HCC,HSB HFR,HCR HTH	1.0	3.0	S,C,T
Loaf	6603	14,20,21	T31S,R1,WM	190	6.00	HCC,HSB HFR,HCR HTH	2.0	2.0	S,C
Stove	6604	14,20,21	T31S,R3E,WM	240	7.50	HCC,HSB HFR,HCR HTH	1.0	2.5	S,C,T

10-YEAR ACTIVITY SCHEDULES

TIMBER SALE PROGRAM (continued)

Sale Name	Sale Number	Management Area	Legal Description	Acres	MMBF	Harvest Method 1/	Road C	Miles R	Harvest System
Otter Thin	6605	14,20,21	T32S,R4E,WM	600	2.90	HCC,HSH HFR,HCR HTH	1.5		S,C,T
Spruce	6606	14,20	T29S,R4E,WM	350	10.50	HCC,HSH HFR,HCR HTH	1.0	3.0	S,C,T
Keg	6607	14,20	T32S,R4E,WM	120	3.90	HSH,HFR HCC	1.5		S,C,T
Scene	6608	7,9,11,20	T30S,R3E,WM	600	3.00	HSH,HFR HCC,HCR HSC		1.5	T,C,S
James	6609	14,20,21	T31S,R2&3E,WM	300	10.30	HSH,HCC HCR,HFR	1.0	1.5	T,C,MS,C,S
Picea	6610	20	T29S,R4E,WM	100	3.20	HCC,HCR HFR	.5	1.0	C,MS,S
Horn	6611	20,21	T31S,R1E,WM	170	4.00	HSH,HCR HCC,HFR	1.0	5	S,MS,C
Salvage & Fuelwood	6612	All	District Wide		1.00	HSV			T,C
97 Salvage & Small	7101	6,7,8,9,14,20,21	District Wide	1500	3.00	HSV		1.0	C,T
Mulligan	7102	6,20	T41S,R3W,S1,WM	200	2.00	HCC,HFR	1.3	0.5	T,S
Lakes	7103	16,20,21	T41S,R2W,S5,6,8,WM	100	4.00	HCC,HSH	2.5		T,S
Brushy	7104	6,14	T40S,R3W,S29,30 WM	100	1.00	HCC,HFR HTH	1.0		T,S
Hong Kong	7105	6,9,14,20, 21	T40S,R3W,S6,7,WM	200	2.00	HCC,HFR	2.5	1.0	T,S
Sturgeon	7106	20,21	T40S,R5W,S20,21,WM	150	6.00	HCC,HFR	3.0		T,S
Hornet	7107	20,21	T41S,R2W,S4,5,WM	150	1.50	HCR,HSH	0.8	0.5	S,T,H
Snake	7201	14,20	T37S,R4E,S17,18 19,20,WM	120	1.00	HSH,HFR,HSC	.7		T
Ostrich	7202	6,7,20	T37S,R5E,S31,32 WM	190	2.00	HFR,HSC			T
'Ol Dan	7203	7,20	T38S,R5E,S6,7,WM	190	2.10	HFR,HSH			T
Relish	7204	6,20	T38S,R4E,S11,WM	170	.80	HFR			T
Neil	7205	20,21	T40S,R1E,S1,12,13 WM	85	3.70	HCC,HFR	1.9		T,S
Misc/Salvage	7206	20,21	T39S&40S,R1E,WM		1.00	HSV			T,MS
Howl	7301	14	T33S,R4E,S26,33,34 WM,T34S,R4E,S3,WM	97	2.80	HSH			T,S

## TIMBER SALE PROGRAM (continued)

Sale Name	Sale Number	Management Area	Legal Description	Acres	MMBF	Harvest Method 1/	Road C	Miles R	Harvest System
Zap	7302	14	T33S,R4E,S19,29,30 31,33,T34S,R4E, S6,WM	324	3.50	HFR			T
Spoke	7303	23	T35S,R4E,S7,8,9, 16,17,20,21,30,WM, T35S,R3E,S25,WM	926	7.00	HSH,HTH HFR	0.8		T
Gween	7304	14	T33S,R4E,S27,28, 34,WM	120	2.30	HSH	0.4		T
Carlsom	7305	14,20	T34S,R4E,S27,32, 33,34,WM,T35S,R4E ,S3,4,9,WM	155	0.80	HTH			T
Tash	7306	20	T33S,R4E,S25,26, WM,T33S,R5E,S30, WM	145	2.20	HCC,HSH, HFR			T
John	7601	8,9,11,20, 21	T28S,R4E,WM	200	6.40	HCC,HSH,HFR HCR,HTH	1.5	1.0	S,C,T
Doug	7602	14,20,21	T30S,R3,WM	360	11.00	HCC,HSH,HFR HCR,HTH	2.0	4.0	T,C
River	7603	14,20,21	T30S,R3E,WM	190	5.00	HCC,HSH,HFR HCR HTH	1.5	2.5	S,C,T
Hunt	7604	6,11,14,20 23	T31S,R3E,WM	310	9.00	HCC,HSH HFR,HCR HTH	1.5	2.0	S,C,T
Gink	7605	14,20,21	T31,R4,WM	270	7.80	HCC,HSH HFR,HCR HTH	2.0	2.0	S,C,T
Cas	7606	6,7,20,23	T30S,R3&4E,WM	100	5.80	HCC,HSH HFR,HCR HTH	.5	2.0	S,C,T
Tonic	7607	20,21	T29S,R4E,WM	200	3.10	HCC,HSH HFR,HCR HTH	.5	1.0	S,C,T
Fin	7608	14,20,21 24	T31S,R4E,WM	140	4.40	HSH,HCR HFR	.5	1.0	MS,C,T
Len	7609	14,20,21	T31S,R4E,WM	200	5.00	HFR,HSH HCC	.5	1.0	S,C,T
Fawn	7610	14,20,21	T31S,R1E,WM	100	4.00	HCC,HSH HCR	5	2.0	MS,C,S
Salvage & Fuelwood	7611	All	District Wide		1.50	HSV			T,C
98 Salvage & Small	8101	6,7,8,9,14 20,21	District Wide		2.00	HSV		1.0	C,T
Stein	8102	14,20,21	T41S,R3W,S7,8,9, T48N,R11W,S13,14, 15, WM	1000	4.00	HSH	4.0	1.5	HS,T

10-YEAR ACTIVITY SCHEDULES

**TIMBER SALE PROGRAM (continued)**

Sale Name	Sale Number	Management Area	Legal Description	Acres	MMBF	Harvest Method 1/	Road C	Miles R	Harvest System
Whiskey Peak	8103	21	T41S,R5W,S2,3,10, 11,WM	100	2 00	HCC,HSH	1.5		T,S
Marble	8104	16,20,21	T48N,R12W,S34,35 ,36, WM	80	1 00	HSH	1 0	1.0	T,S
Sequoia	8105	20,21	T48N,R9W,S26,WM	100	2.00	HSH,HFR	1.0	0.5	T,S
Prince	8106	14	T40S,R3W,S8,9,10 ,WM	100	1 50	HCC,HOR	3 0		T,S
Sucker	8107	20,21	T41S,R5W,S5,6,7, WM	150	4 00	HCC,HSH	1.0		T,S
Louse Rock	8108	20	T40S,R1W,S25,36, WM	200	3 00	HFR,HSH HCC	2 5	1.0	T,S
Artesian	8201	6,7,20	T37S,R4E,S23,24, 25,T37S,R5E,S19, 29,30,WM	720	5.10	HSC,HFR HSH			T
Burger	8202	20	T37S,R4E,S27,WM	44	.40	HFR			T
Foxy	8203	6 20	T38S,R4E,S1,3, T38S,R5E,S6,WM	90	1.50	HCC,HSH HSC	.5		T
Coyote	8204	20	T37S,R4E,S32, T38S,R4E,S5,WM	35	30	HFR			T
Bankroll	8205	20	T38S,R4E,S15,WM	100	1 00	HFR			T
Dally	8206	20	T37S,R4E,S34,35, WM	130	1.80	HFR			T
Misc/Salvage	8207	20	T37S,R3&4E,WM		1 00	HSV			T
Esmerelda	8301	20	T36S,R3E,S17,21, WM	221	3 40	HCC,HSH	0 5		T,S
Gabby	8302	20	T34S,R4E,S15,16, 21,28,WM	241	5.40	HCC,HSH HTH,HFR	0 5		T,S
Apex	8303	14	T34S,R2E,S1,3,16, 23, WM	238	1 90	HSH,HTH			T,S
Basin	8304	23	T35S,R4S,S13,14, 23,24,25,26,WM	159	3 60	HSH	0.6		T,S
Bass	8305	7,23	T35S,R3E,S34,WM	190	1 30	HFR			T
Elk	8306	20	T33S,R3E,S10,WM	7	0 10	HTH			S
Carl Too	8307	14,20	T34S,R4E,S27,32, 33,34,WM	89	2 90	HCC			T
Bessie	8601	14,20,21	T32S,R4E,WM	600	14 00	HCC,HSH HFR,HCR HTH	2 0	4.0	S,C,T,MS
Blackber	8602	20,23	T31S,R3&4,WM	600	15 00	HCC,HSH HFR,HCR HTH	1.0	2 5	S,C,T

## TIMBER SALE PROGRAM (continued)

Sale Name	Sale Number	Management Area	Legal Description	Acres	MMBF	Harvest Method 1/	Road C	Miles R	Harvest System
Peak	8603	9,11,16,20	T29S,R3E,WM	250	5.00	HCC, HSH HFR, HCR HTH	1 0	2.0	S,C,T
Missed	8604	14,20	T33S,R1W,WM	130	4.00	HCC, HSH HFR, HCR HTH	.5	1.0	S,C
Spot	8605	11,14,20	T32S,R2&3,WM	500	8.00	HCC, HSH HFR, HCR HTH	1.0	2.0	S,C
Dues	8606	7,8,9,16	T29,R4E,WM	250	2.50	HCC, HSH HFR, HSC HCR, HTH	.5	.5	T,C
String	8607	11,14	T31&32S,R3E,WM	260	4.00	HCC, HSH HFR, HCR HTH		.5	T,C
Lund	8608	20	T32S,R2,3E,WM	160	4.00	HFR, HSH HCC, HCR	5	2.0	MS,C,S
Barr	8609	14,20,24	T32S,R4E,WM	180	4.50	HSH, HCC HCR	1 0	1.5	MS,C,S
Bug	8610	9,11,16,20	T30S,R3E,WM	200	4.50	HCC, HSH HFR, HCR HTH	1.0	1.5	S,C,T
Salvage & Fuelwood	8611	All	District Wide		1 00	HSV			T,C
99 Salvage & Small	9101	6,7,8,9,14, 20,21	District Wide	500	0 50	HSV		0 5	C,T
Curocity	9102	20,21	T40S,R3W,S14,23, WM	150	3.00	HCC, HSH	0 5		T,S
Pine Gulch	9103	20,21	T40S,R5W,S16,17, 18,WM	120	3.00	HCC, HSH	1.5	0.5	T,S
Devils Gulch	9104	6,20,21	T41S,R5W,S14,15, T48N,R12W,S19,20 WM	150	4.00	HCC, HSH HFR	2 0	1.0	T,S
Aubery	9105	20	T40S,R4W,T41S,R4W S29,30,31,32,WM	150	4 00	HCC, HFR	2.0		T,S
Lick	9106	20	T47N,R11&12W,S28, 29, WM	150	5 0	HCC, HSH HFR	3 0	2 0	T,S
Forked	9201	6,9,20	T37S,R3E,S1,T37S R4E,S5,6,WM	320	2 50	HSC			T,S
Pancake	9202	6,20	T37S,R4E,S15,16, WM	300	2 80	HFR, HSH			T
Jamieson	9203	7,9	T38S,R1E,S21,27, 35,WM	450	2.50	HSC			H
Payload	9204	9,20	T37S,R4E,S7,8,17, 18,T37S,R3E,S13,14 ,WM	175	1 80	HTH	8		T,S



10-YEAR ACTIVITY SCHEDULES

**TIMBER SALE PROGRAM (continued)**

Sale Name	Sale Number	Management Area	Legal Description	Acres	MMBF	Harvest Method 1/	Road C	Miles R	Harvest System
Locust	9205	9,20	T37S,R4E,S2,WM	90	1 00	HFR			T
Misc/Salvage	9206	20	T37S,R3&4E,WM		1 00	HSV			T
Ash	9301	14	T35S,R3E,S28,33, WM	64	1 70	HSH	0.3		T
Mac	9302	20	T36S,R4E,S28,34, 35,WM	141	1 60	HSH,HFR			T
Bones	9303	14	T36S,R4E,S18,19, WM	28	0 30	HTH			T
Blade	9304	14	T36S,R3E,S11,15, WM	108	1.20	HSH,HTH			T,S
Rag	9305	14	T34S,R4E,S4,5,8, WM	172	3.60	HCC,HSH			T
Miz	9306	14	T33S,R4E,S17,18,19,20,29, 30,31,32,33,WM,T34S,R4E, S26,WM	612	10 20	HCC,HSH			T
Crawtop	9601	6,20,21	T31S,R4E,WM	500	10 00	HCC,HSH HFR,HCR HTH	1.0	2 5	S,C,T
Bullhorn	9602	6,11,14,20 23	T31,R3E,WM	300	9 00	HCC,HSH HFR,HTH	5	2 0	S,C,T
Slipper	9603	14,20,21	T31S,R2E,WM	100	3 00	HCC,HSH HFR,HCR HTH	.5	2 0	S,C,T
Can	9604	11,20,21	T29S,R3&4,WM	500	13.50	HCC,HSH,HFR HCR,HTH	1 5	4 0	S,C,T,MS
Spool	9605	14,20,21	T31S,R2E,WM	300	6.00	HCC,HSH,HFR HCR,HTH	5	2 0	S,C,T
Shoeshine	9606	14,20,21	T30&31,R1&2,WM	400	9.00	HCC,HSH HFR,HCR HTH	1.0	1 5	S,C,T
None	9607	7,9,11	T30S,R3E,WM	300	3.00	HSC,HCC HSH,HFR HCR,HTH			S,C,T
Chance	9608	11,14	T31S,R3E,WM	200	2 00	HSC,HCC HSH,HFR HCR,HTH		1.0	S,C,T
Wiser	9609	7,16,20	T28S,R4&5E,WM	100	1 00	HSC,HCC HSH,HFR HCR,HTH	5	5	S,C,T
Broke	9610	14,20	T31S,R3&4E,WM	320	8 00	HFR,HSH HCC,HCR		1 5	MC,T,C,S
Salvage & Fuelwood	9611	All	District Wide		1.00	HSV			C,T

## RANGE IMPROVEMENT

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Applegate	Whiskey Relog - Seeding	CWKV	90	Acres	38	3.2
Applegate	Sturgis/Triple-Seeding	CWKV	90	Acres	93	5.0
Applegate	Sturgis/Triple-Fencing	CWKV	90	Structures	2	5.9
Applegate	Sturgis/Triple-Cattleguard	CWKV	90	Structures	2	6.8
Applegate	Sturgis/Triple-Trail	CWKV	90	Structures	1	1.6
Applegate	Flumet-Fencing	CWKV	90	Structures	2	5.8
Applegate	Flumet-Drift Fence	CWKV	90	Structures	1	3.6
Applegate	Flumet-Water Development	CWKV	90	Structures	1	4.2
Applegate	Flumet-Seeding	CWKV	90	Acres	36	1.5
Applegate	Lake Salvage-Trail	CWKV	90	Structures	1	2.0
Applegate	Carson Salvage-Corral	CWKV	90	Structures	1	6.5
Applegate	Carson Salvage Cattleguard	CWKV	90	Structures	1	2.9
Applegate	Mulepost Water Development	CWKV	90	Structures	1	1.4
Applegate	Bourbon-Tansy Ragwort	CWKV	90	Acres	1	.8
Applegate	Summit Lake - Gate	CWKV	90	Structures	1	.8
Applegate	Humpy Triangle - Fence	CWKV	90	Structures	2	7.7
Applegate	Fishpond	CWKV	90	Structures	2	6.1
Applegate	Triple Fence	CWKV	90	Structures	2	1.0
Applegate	Silver Fork Burn	RBRB	90	Acres	50	1.0
Applegate	Noxious Weeds	NFRG	90	Acres	62	4.8
Applegate	O'Brien Gate	NFRG	90	Structures	1	.5
Applegate	Beaver Gap Corral	NFRG	90	Structures	1	.8
Applegate	Pond Construction	RBRB	90	Structures	2	4.2
Applegate	Silver Fork-Stream Protection Short Creek Prairie	NFRG	90	Structures	1	1.5
Ashland	Forage Improvement South Butte C&H	CWKV	90	Acres	23	4.5
Ashland	Fence Construction - Deadwood C&H	CWKV	90	Structures	5	16.2
Ashland	Water Developments South Butte C&H	CWKV	90	Structures	2	4.2
Ashland	Noxious Weed Treatment Deadwood C&H	CWKV	90	Acres	6	.8
Ashland	Cattleguard Road 37 South Butte C&H	CWKV	90	Structures	1	12.5
Ashland	Fence Removal Siskiyou Crest	RBRB	90	Structures	3	1.5
Ashland	Cattleguard Conde C&H	NFRG	90	Structures	1	2.5
Ashland	Noxious Weed Treatment Deadwood C&H	NFRG	90	Acres	3	.2
Ashland	Meadow Encroachment Wagner Butte C&H	NFRG	90	Acres	5	.3
Butte Falls	Willow Prairie Riparian Fence	NFRG	90	Structures	1	2.0
Butte Falls	Ashswale Fertilization	NFRG	90	Acres	10	.3
Butte Falls	Willow Prairie Fertilization	NFRG	90	Acres	15	.4
Butte Falls	Black Bear Fertilization	NFRG	90	Acres	10	.3

10-YEAR ACTIVITY SCHEDULES

**RANGE IMPROVEMENT (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Butte Falls	Blue Rock Fence	RBRB	90	Structures	1	.3
Butte Falls	Ashswale Willow Plant	RBRB	90	Acres	6	1.5
Butte Falls	Camp 11 Fertilization	RBRB	90	Acres	50	1.5
Butte Falls	Ashswale Klamath Weed Eradication	RBRB	90	Acres	10	.7
Butte Falls	Jill Pond	CWKV	90	Structures	1	2.2
Butte Falls	Tie Thin Spring Dev.	CWKV	90	Structures	1	.9
Butte Falls	Brandy Guzzler	CWKV	90	Structures	1	5.0
Butte Falls	Clement Thin Forage Replace	CWKV	90	Acres	54	2.8
Butte Falls	Tie Thin Forage Replacement	CWKV	90	Acres	68	3.7
Butte Falls	West Rye Forage Replacement	CWKV	90	Acres	66	3.5
Butte Falls	West Sump Forage Replacement	CWKV	90	Acres	100	4.7
Butte Falls	Willow Forage Replacement	CWKV	90	Acres	12	.6
Butte Falls	Ashswale Cost Share Seed and Fertilization	CWKV	90	Acres	10	.8
Prospect	Bitter TS (Forage Seeding)	CWKV	90	Acres	3	1.0
Prospect	Green Acs II (Cull Log Corral)	CWKV	90	Structures	1	2.6
Prospect	Mooney TS (Fence Construction)	CWKV	90	Structures	2	7.7
Prospect	Butler Butte (Cattleguard Removal)	NFRG	90	Structures	2	2.0
Prospect	Hershberger (Larkspur Removal)	NFRG	90	Acres	5	0.5
Prospect	Deer Creek (Gate Inst-Spur 400)	NFRG	90	Structures	1	0.8
Prospect	Huckleberry CG (Fence Construction)	NFRG	90	Structures	2	5.5
Prospect	Alkali Mdw (Tree Eradication)	RBRB	90	Acres	5	1.0
Prospect	Ginkgo Basin (Larkspur Rem)	RBRB	90	Acres	10	0.6
Prospect	Poison Mdw (Larkspur Rem)	RBRB	90	Acres	10	0.7
Applegate	Summit Lake Fence	CWKV	91	Structures	2	12.7
Applegate	Summit Lake Trails	CWKV	91	Structures	2	.6
Applegate	Summit Lake Seeding	CWKV	91	Acres	72	53.0
Applegate	Mule Post Seeding	CWKV	91	Acres	23	.7
Applegate	Ranch Corral	CWKV	91	Structures	1	2.2
Applegate	Ranch Pond	CWKV	91	Structures	1	1.6
Applegate	Silver Fork Fence Reconstruction	NFRG RBRB	91	Structures	6	25.5
Applegate	Wards Fork Cattleguard	NFRG	91	Structures	3	7.5
Applegate	Fertilization-Stringtown/Tamarack	NFRG	91	Acres	75	4.5
Applegate	Noxious Weed Teasel	NFRG	91	Acres	10	2.3
Applegate	Dutchman Spring Development	NFRG	91	Structures	1	1.5
Applegate	Chapple Spring Development	NFRG	91	Structures	1	1.5
Applegate	Thompson Pipeline	RBRB	91	Structures	2	2.0
Applegate	Lilly Mountain - Meadow	RBRB	91	Acres	5	2.0

**RANGE IMPROVEMENT (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Applegate	Elliott Cattleguard	NFRG	91	Structures	2	2.5
Ashland	Noxious Weed Treatment Deadwood, Conde, South Butte, Wagner Butte C&H	CWKV	91	Acres	10	1.5
Ashland	Water Developments Deadwood, South Butte C&H	CWKV	91	Structures	3	7.5
Ashland	Spring Enclosure Conde C&H	CWKV	91	Structures	1	.7
Ashland	Forage Improvement South Butte C&H	CWKV	91	Acres	60	4.0
Butte Falls	Shoe Thin Pond	CWKV	91	Structures	1	1.7
Butte Falls	River Thin Forage Replacement	CWKV	91	Acres	12	.4
Butte Falls	School Pond	CWKV	91	Structures	1	1.7
Butte Falls	South Billie Spring Development	CWKV	91	Structures	1	.5
Butte Falls	Umpire Thin Spring Development	CWKV	91	Structures	1	1.9
Butte Falls	River Thin Weed Eradication	CWKV	91	Acres	105	.7
Butte Falls	Blue Rock Fence	RBRB	91	Structures	1	.3
Butte Falls	Lodgepole Fence	RBRB	91	Structures	2	.4
Butte Falls	Brandy Pond Improvement	CWKV	91	Structures	1	.6
Butte Falls	Peak Fence	CWKV	91	Structures	2	2.5
Butte Falls	Brandy Forage Replacement	CWKV	91	Acres	12	.6
Prospect	Lodgepole (Fence Reconstruction)	NFRG	91	Structures	4	12.8
Prospect	Butler Butte Corral (Construction)	NFRG	91	Structures	1	2.5
Prospect	Union Creek Campground (Fence Reconstruction)	NFRG	91	Structures	1.5	8.3
Prospect	On TS (Forage Seeding)	CWKV	91	Acres	18	2.0
Prospect	Whiskey TS (Forage Seeding)	CWKV	91	Acres	7	0.8
Prospect	Halifax Allotment(Update)	NFRG	91	Plans	1	12.0
Prospect	Halifax Allot (Maintenance)	NFRG	91	Structures	5	10.0
Prospect	Halifax Allot (Noxious Plants Inventory)	NFRG	91	Plans	1	2.5
Applegate	Sunhorse - Fence	CWKV	92	Structures	1	1.7
Applegate	Sunhorse - Water Development	CWKV	92	Structures	1	1.7
Applegate	Sunhorse - Seeding	CWKV	92	Acres	85	4.3
Applegate	Bloomfield - Seeding	CWKV	92	Acres	25	1.1
Applegate	Steamboat Final Seeding	CWKV	92	Acres	6	.4
Applegate	Yale Creek Corral	RBRB	92	Structures	1	2.2
Applegate	Fertilization - Badger/Greyback	NFRG	92	Acres	30	7.7
Applegate	Meadow Rehab - Brush Encroachment	RRRB	92	Acres	10	7.5
Applegate	O'Brien Fence	RRRB	92	Structures	4	12.0
Applegate	Dumpy Water Development	NFRG	92	Structures	1	1.5
Applegate	Yellowjacket Spring	NFRG	92	Structures	2	1.5
Applegate	Noxious Weeds - Starthistle - A. Lake	RBRB	92	Acres	25	2.4

**RANGE IMPROVEMENT (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Applegate	Pond Construction	NFRB RBRB	92	Structures	2	2.3
Applegate	Sevenmile Ridge Fence	NFRG RBRB	92	Structures	4	23.0
Ashland	Fence Meadow-South Fork South Butte C&H	CWKV	92	Structures	2	6.5
Ashland	Meadow Rehab-South Fork South Butte C&H	CWKV	92	Acres	10	3.0
Ashland	Water Development Conde C&H	CWKV	92	Structures	1	2.5
Ashland	Fence Construction - South Butte C&H/Deadwood C&H	CWKV	92	Structures	4	14.8
Ashland	Noxious Weed Treatment - South Butte C&H/Deadwood C&H	CWKV	92	Acres	12	1.8
Ashland	Meadow Rehab Conde C&H	CWKV	92	Acres	50	4.1
Ashland	Forage Improvement Deadwood C&H	CWKV	92	Acres	20	2.4
Ashland	Forage Improvement South Butte C&H	NFRG	92	Acres	10	1.2
Ashland	Noxious Weed Treatment Conde C&H	NFRG	92	Acres	2	.3
Ashland	Water Development Conde C&H	RBRB	92	Structures	1	2.5
Butte Falls	Gypsy/Hoe Thin Fence	CWKV	92	Structures	1	.3
Butte Falls	Hill Pond	CWKV	92	Structures	1	1.6
Butte Falls	South Wind Spring Development	CWKV	92	Structures	1	.7
Butte Falls	Blue Rock Fence	RBRB	92	Structures	1	.3
Butte Falls	Lodgepole Fence	RBRB	92	Structures	2	.4
Butte Falls	Jeep Spring Development	CWKV	92	Structures	1	1.9
Butte Falls	Upper Forage Replacement	CWKV	92	Acres	48	3.3
Prospect	Ace TS (Forage Seeding)	CWKV	92	Acres	3	0.4
Prospect	Silver TS (Forage Seeding)	CWKV	92	Acres	17	1.8
Prospect	Shine TS (Fence Reconstruction)	CWKV	92	Structures	1	0.6
Prospect	Red Blanket Allot (Update)	NFRG	92	Plans	1	20.0
Prospect	Red Blanket Allot (Maintenance)	NFRG	92	Structures	20	18.5
Prospect	Red Blanket (Noxious Plants Inventory)	NFRG	92	Plans	1	2.5
Prospect	Halifax Allot (Noxious Plants)	RBRB	92	Acres	10	2.0
Applegate	Rockspine - Fencing	CWKV	93	Structures	3	7.5
Applegate	Stinger/Overcoat - Fencing	CWKV	93	Structures	6	135.9
Applegate	Stinger/Overcoat - Gate/Fence	CWKV	93	Structures	4	4.7
Applegate	Stinger/Overcoat - Trail	CWKV	93	Structures	2	1.1
Applegate	Stinger/Overcoat - Spring Development	CWKV	93	Structures	2	2.1
Applegate	Dreamboat	CWKV	93	Acres	19	.7
Applegate	Shasta Removal - Seeding	CWKV	93	Acres	134	7.5
Applegate	Stinger/Overcoat - Seeding	CWKV	93	Acres	60	4.1
Applegate	Steves Fork Brush Removal	NFRG	93	Acres	10	3.0

**RANGE IMPROVEMENT (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Applegate	Texture Corral	NFRG	93	Structures	1	2.6
Applegate	Elliott Corral	NFRG	93	Structures	1	2.6
Applegate	Stock Driveway Maintenance	RBRB	93	Structures	5	4.5
Applegate	Carberry Fence/Campground	NFRG	93	Structures	3	8.0
Applegate	Perks Corral	NFRG	93	Structures	4	3.0
Applegate	OK Corral	NFRG	93	Structures	4	3.0
Applegate	Erosion - Seeding Non-timber Sale Area	RBRB NFRG	93	Acres	10	1.2
Ashland	Noxious Weed Treatment Wagner Butte C&H	CWKV	93	Acres	12	2.0
Ashland	Fence Construction Deadwood C&H	CWKV	93	Structures	6	20.0
Ashland	Forage Improvement Deadwood C&H/South Butte C&H	CWKV	93	Acres	60	8.0
Ashland	Water Developments Wagner Butte C&H	NFRG	93	Structures	2	5.0
Ashland	Fence Removal Wagner Butte C&H	RBRB	93	Structures	3	1.5
Butte Falls	Clement Cattleguard	CWKV	93	Structures	1	8.5
Butte Falls	Jupiter Fence	CWKV	93	Structures	1	3.7
Butte Falls	Lookout Thin Forage Replacement	CWKV	93	Acres	56	2.8
Butte Falls	Blue Rock Fence	RBRB	93	Structures	1	.3
Butte Falls	Lodgepole Fence	RBRB	93	Structures	2	.4
Butte Falls	Meadow Fertilization	NFRG	93	Acres	25	1.5
Butte Falls	Water Development	CWKV	93	Structures	2	3.0
Prospect	K-Rock TS (Fence Removal)	CWKV	93	Structures	2	1.6
Prospect	K-Rock TS (Noxious Weed)	CWKV	93	Acres	5	3.2
Prospect	Miser TS (Forage Seeding)	CWKV	93	Acres	15	1.8
Prospect	Silver TS (Fence Rem)	CWKV	93	Structures	1	7.1
Prospect	Silver TS (Meadow Rehab)	CWKV	93	Acres	10	1.7
Prospect	Varmit TS (Spring Bx Develop)	CWKV	93	Structures	1	.9
Prospect	Crater Creek Allot (Update)	NFRG	93	Plans	1	20.0
Prospect	Crater Creek (Maintenance)	NFRG	93	Structures	10	4.5
Prospect	Crater Creek (Noxious Plants Inventory)	NFRG	93	Plans	1	2.5
Prospect	Red Blanket (Noxious Plants)	RBRB	93	Acres	10	4.5
Prospect	Halifax (Noxious Plants)	RBRB	93	Acres	5	2.3
Prospect	Allotments (Forage Seeding)	CWKV	93	Acres	45	5.5
Applegate	Flying Apple Fence	CWKV	94	Structures	2	8.3
Applegate	Flying Apple - Drift Fence	CWKV	94	Structures	1	2.7
Applegate	Flying Apple - Water Developmen	CWKV	94	Structures	1	1.6
Applegate	Flying Apple - Trail Construction	CWKV	94	Structures	1	1.5
Applegate	Reddog - Fence	CWKV	94	Structures	1	7.6

**RANGE IMPROVEMENT (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Applegate	Reddog - Gates	CWKV	94	Structures	2	1.7
Applegate	Reddog Barricade	CWKV	94	Structures	1	.9
Applegate	Beaver Gap Fence	RBRB	94	Structures	3	8.0
Applegate	Perks Pasture Fence -Replacement	RBRB	94	Structures	2	7.5
Applegate	Squaw Lakes Trail	NFRG	94	Structures	1	2.5
Applegate	Noxious Weeds - District-wide	RBRB	94	Acres	25	2.6
Applegate	Erosion Seeding - Non-Timber Sale	NFRG RBRB	94	Acres	30	4.00
Applegate	Fence Construction for Vegetation Control and Livestock Control	NFRG	94	Structures	3	8.0
Applegate	Spring Development/Spring Protection	RBRB	94	Structures	2	2.5
Ashland	Noxious Weed Treatment Deadwood C&H	CWKV	94	Acres	12	2.0
Ashland	Fence Construction South Butte C&H	CWKV	94	Structures	6	20.0
Ashland	Forage Improvement Deadwood/South Butte C&H	CWKV	94	Acres	60	8.0
Ashland	Water Developments South Butte C&H	NFRG	94	Structures	2	5.0
Ashland	Forage Improvement Wagner Butte C&H	RBRB	94	Acres	10	1.3
Butte Falls	Mud Puddle Fence Relocate	CWKV	94	Structures	1	3.7
Butte Falls	Forage Seeding	CWKV	94	Acres	100	7.0
Butte Falls	Water Development	CWKV	94	Structures	2	3.0
Butte Falls	Blue Rock Fence	RBRB	94	Structures	1	.3
Butte Falls	Lodgepole Fence	RBRB	94	Structures	2	.4
Butte Falls	Meadow Fertilization	NFRG	94	Acres	20	1.5
Butte Falls	Noxious Weed Eradic.	RBRB	94	Acres	10	1.0
Prospect	K-Rock TS (Noxious Weed Control)	CWKV	94	Acres	5	0.7
Prospect	Hamaker Allot (Update)	NFRG	94	Plans	1	20.
Prospect	Hamaker Allot (maintenance)	NFRG	94	Structures	10	3.5
Prospect	Hamaker (Noxious Plants Inventory)	NFRG	94	Plans	1	2.5
Prospect	Crater Creek (Noxious Plants)	RBRB	94	Acres	10	3.0
Prospect	Red Blanket (Noxious Plants)	RBRB	94	Acres	5	2.3
Prospect	Allotments (Forage Seeding)	CWKV	94	Acres	60	7.5
Applegate	Seeding-Forage Replacemnt	CWKV	95	Acres	150	9.0
Applegate	Pond Construction	RBRB CWKV	95	Structures	5	12.5
Applegate	Spring Protection	RBRB	95	Structures	2	2.5
Applegate	Post Sale Survey	CWKV	95	Acres	100	12.5
Applegate	Corral Replacement	NFRG	95	Structures	2	3.0
Applegate	Fence Construction for Vegetation and Livestock Control	NFRG	95	Structures	3	8.0

**RANGE IMPROVEMENT (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Applegate	Erosion Seeding - Non-Timber Sale	NFRG RBRB	95	Acres	10	1.5
Applegate	Noxious Weeds	RBRB	95	Acres	25	2.6
Ashland	Noxious Weed Treatment Wagner Butte C&H	CWKV	95	Acres	12	2.0
Ashland	Fence Construction Deadwood C&H	CWKV	95	Structures	6	20.0
Ashland	Forage Improvement Deadwood C&H South Butte C&H	CWKV	95	Acres	60	8.0
Ashland	Water Developments Wagner Butte C&H	NFRG	95	Structures	2	5.0
Ashland	Fence Removal Wagner Butte C&H	RBRB	95	Structures	3	1.5
Butte Falls	Forage Replacement	CWKV	95	Acres	100	7.0
Butte Falls	Water Development	CWKV	95	Structures	2	3.0
Butte Falls	Meadow Fertilization	NFRG	95	Acres	20	1.5
Butte Falls	Tree Encroachment	NFRG	95	Acres	10	2.5
Prospect	Dog Prairie Allot (Update)	NFRG	95	Plans	1	10.0
Prospect	Dog Prairie Allot (Maintenance)	NFRG	95	Structures	10	4.5
Prospect	Dog Prairie (Noxious Plant Inventory)	NFRG	95	Plans	1	2.5
Prospect	Alkali Allot (Update)	NFRG	95	Plans	1	15.0
Prospect	Alkali Allot (Maintenance)	NFRG	95	Structures	15	7.0
Prospect	Dog Prairie (Noxious Plants Inventory)	NFRG	95	Plans	1	2.5
Prospect	Hamaker Allot (Noxious Plants)	RBRB	95	Acres	5	3.0
Prospect	Red Blanket (Noxious Plants)	RBRB	95	Acres	5	2.5
Prospect	Allotments (Forage Seeding)	CWKV	95	Acres	60	7.8
Applegate	Forage Replacement Seeding	CWKV	96	Acres	100	6.0
Applegate	Water Development - Reconstruction	RBRB	96	Structures	2	3.6
Applegate	Spring Protection	RBRB	96	Structures	3	3.5
Applegate	Meadow - Seeding & Fertilizing	NFRG	96	Acres	50	8.0
Applegate	Meadow - Burning	NFRG	96	Acres	50	2.0
Applegate	Noxious Weeds	RBRB	96	Acres	25	2.0
Applegate	Fence - Reconstruction	NFRG RBRB	96	Structures	4	8.0
Applegate	Post-Sale Surveys	CWKV	96	Acres	100	12.5
Ashland	Noxious Weed Treatment Deadwood C&H	CWKV	96	Acres	12	2.0
Ashland	Fence Construction South Butte C&H	CWK	96	Structures	6	20.0



## RANGE IMPROVEMENT (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Ashland	Forage Improvement Wagner Butte/Conde C&H	CWKV	96	Acres	60	8.0
Ashland	Water Development South Butte C&H	NFRG	96	Structures	2	5.0
Ashland	Forage Improvement Conde C&H	RBRB	96	Acres	10	1.3
Butte Falls	Forage Replacement	CWKV	96	Acres	100	7.0
Butte Falls	Water Development	CWKV	96	Structures	2	3.0
Butte Falls	Fence Maintenance	RBRB	96	Structures	3	.7
Prospect	Hershberger-Brown's Cabin Allot (Update)	NFRG	96	Plans	1	25.0
Prospect	Hersh-Brown Allot (Maintenance)	NFRG	96	Structures	10	4.5
Prospect	Hersh-Brown Allot (Nox Plant Inventory)	NFRG	96	Project	10	3.8
Prospect	Dog Prairie Allot (Nox Plants)	RBRB	96	Acres	10	2.8
Propsect	Crater Creek Allot (Nox Plants)	RBRB	96	Acres	5	1.8
Prospect	Allotments (Forage Seeding)	CWKV	96	Acres	45	6.1
Applegate	Forage Replacement - Aerial Seeding	CWKV	97	Acres	100	6.2
Applegate	Post-Sale Surveys	CWKV	97	Acres	75	12.8
Applegate	Corral Replacement	NFRG	97	Structures	1	2.0
Applegate	Stock Driveway Maintenance	RBRB	97	Structures	4	6.5
Applegate	Spring Development	NFRG	97	Structures	1	2.8
Applegate	Riparian Protection	RBRB	97	Structures	2	7.0
Applegate	Noxious Weeds RBRB	NFRG	97	Acres	25	3.0
Ashland	Noxious Weed Treatment Wagner Butte C&H	CWKV	97	Acres	12	2.0
Ashland	Fence Construction Deadwood C&H	CWKV	97	Structures	6	20.0
ASHLAND	Forage Improvement Deadwood C&H South Butte C&H	CWKV	97	Acres	60	8.0
Ashland	Water Developments Wagner Butte C&H	NFRG	97	Structures	2	5.0
Ashland	Fence Removal Wagner Butte C&H	RBRB	97	Structures	3	1.5
Butte Falls	Forage Replacement	CWKV	97	Acres	100	7.0
Butte Falls	Water Development	CWKV	97	Structures	2	3.0
Butte Falls	Fence Maintenance	RBRB	97	Structures	3	.7
Prospect	Woodruff Allot (Update)	NFRG	97	Project	1	25.0
Propsect	Woodruff Allot (Maintenance)	NFRG	97	Structures	15	8.5
Prospect	Woodruff Allot (Noxious Plt Inventory)	NFRG	97	Plans	1	2.5

**RANGE IMPROVEMENT (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Prospect	Hersh-Brown Allot (Noxious Plts)	RBRB	97	Acres	10	4.0
Prospect	Alkali Allot (Noxious Plts)	RBRB	97	Acres	10	4.0
Prospect	Dog Prairie (Noxious Plts)	RBRB	97	Acres	10	4.0
Prospect	Allotments (Forage Seeding)	CWKV	97	Acres	40	5.7
Applegate	Forage Replacement - Aerial Seeding	CWKV	98	Acres	50	3.2
Applegate	Post-Sale Surveys	CWKV	98	Acres	100	13.0
Applegate	Noxious Weeds	NFRG RBRB	98	Acres	25	3.0
Applegate	Spring Protection	RBRB	98	Structures	1	3.5
Applegate	Meadow Enhancement	RBRB	98	Acres	25	1.2
Ashland	Fence Reconstruction	NFRG	98	Structures	2	6.0
Ashland	Noxious Weed Treatment Deadwood C&H	CWKV	98	Acres	12	2.0
Ashland	Fence Construction South Butte C&H	CWKV	98	Structures	6	20.0
Ashland	Forage Improvement Wagner Butte C&H	CWKV	98	Acres	60	8.0
Ashland	Water Development South Butte C&H	NFRG	98	Structures	2	5.0
Ashland	Forage Improvement Deadwood C&H	RBRB	98	Acres	10	1.3
Butte Falls	Forage Replacement	CWKV	98	Acres	100	7.0
Butte Falls	Water Development	CWKV	98	Structures	2	3.0
Butte Falls	Fence Maintenance	RBRB	98	Structures	3	.7
Prospect	Whaleback Allot (Update)	NFRG	98	Plans	1	20.0
Prospect	Whaleback Allot (Maintenance)	NFRG	98	Structures	8	6.0
Prospect	Whaleback Allot (Noxious Plants Inventory)	NFRG	98	Plans	1	3.5
Prospect	Woodruff Allot (Noxious Plants)	RBRB	98	Acres	10	4.5
Prospect	Hersh-Brown Allot (Nox Plants)	RBRB	98	Acres	10	4.5
Prospect	Allotments (Forage Seeding)	CWKV	98	Acres	40	5.9
Applegate	Forage Replacement - Aerial Seeding	CWKV	99	Acres	50	3.5
Applegate	Noxious Weeds RBRB	NFRG	99	Acres	15	2.5
Applegate	Post Sale Surveys	CWKV	99	Acres	100	13.0
Applegate	Spring Protection	RBRB	99	Structures	1	3.5
Applegate	Corral Replacement	NFRG	99	Structures	1	2.2
Applegate	Fencing for Vegetation and Livestock Control	NFRG	99	Structures	2	8.0
Applegate	Erosion Seeding - Non-Timber Sale Areas	NFRG RBRB	99	Acres	25	3.0

**RANGE IMPROVEMENT (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Applegate	Meadow Enhancement	RBRB	99	Acres	25	1.5
Ashland	Noxious Weed Treatment Deadwood C&H	CWKV	99	Acres	12	2.0
Ashland	Water Developments Conde C&H	CWKV	99	Structures	3	7.5
Ashland	Fence Construction Deadwood C&H	CWKV	99	Structures	4	13.5
Ashland	Forage Improvement	CWKV	99	Acres	40	8.0
Butte Falls	Forage Replacement	CWKV	99	Acres	100	7.0
Butte Falls	Water Development	CWKV	99	Structures	2	3.0
Butte Falls	Fence Maintenance	RBRB	99	Structures	3	.7
Prospect	Butler Butte Allot (Update)	NFRG	99	Plans	1	20.0
Prospect	Butler Butte Allot (Maintenance)	NFRG	99	Structures	10	8.5
Prospect	Butler Butte (Nox Plants Inventory)	NFRG	99	Plans	1	4.5
Prospect	Whaleback Allot (Nox Plants)	RBRB	99	Acres	10	6.0
Prospect	Woodruff Allot (Nox Plants)	RBRB	99	Acres	10	4.5
Prospect	Hersh-Brown Allot (Nox Plants)	RBRB	99	Acres	10	6.0
Prospect	Allotments (Forage Seeding)	CWKV	99	Acres	40	6.2

## RANGE ALLOTMENT MANAGEMENT PLANS UPDATE

Ranger District	Project Name	Fund Code	FY	Unit 1/ Measure	Unit	2/ M \$
Applegate	Big Grayback - Deferred Rotation	NFRG RBRB CWKV	91	AMP	1	
Ashland	Wagner Butte - Season-long	NFRG RBRB CWKV	91	AMP	1	
Butte Falls	Rancheria - Deferred Rotation	NFRG RBRB CWKV	91	AMP	1	
Prospect	Red Blanket C&H - Season-long	NFRG RBRB CWKV	91	AMP	1	
Applegate	Upper Big Applegate - Deferred Rotation	NFRG RBRB CWKV	92	AMP	1	
Prospect	Woodruff C&H - Season-long	NFRG RBRB CWKV	92	AMP	1	
Prospect	Hamaker C&H - Season-long	NFRG RBRB CWKV	92	AMP	1	
Prospect	Dog Prairie C&H - Season-long	NFRG RBRB CWKV	92	AMP	1	
Applegate	Glade Creek - Deferred Rotation	NFRG RBRB CWKV	93	AMP	1	
Ashland	South Butte - Season-long	NFRG RBRB CWKV	93	AMP	1	
Butte Falls	Fish Lake - Deferred Rotation	NFRG RBRB CWKV	93	AMP	1	
Applegate	Beaver-Silver - Deferred Rotation	NFRG RBRB CWKV	94	AMP	1	
Prospect	Crater Creek C&H - Season-long	NFRG RBRB CWKV	94	AMP	1	
Applegate	Elliott Creek - Deferred Rotation	NFRG RBRB CWKV	95	AMP	1	
Ashland	Deadwood - Deferred Rotation	NFRG RBRB CWKV	95	AMP	1	
Butte Falls	Imnaha - Season-long	NFRG RBRB CWKV	95	AMP	1	
Prospect	Alkali C&H - Season-long	NFRG RBRB CWKV	95	AMP	1	
Applegate	Carberry Creek - Deferred Rotation	NFRG RBRB CWKV	96	AMP	1	

**RANGE ALLOTMENT MANAGEMENT PLANS UPDATE (continued)**

Ranger District	Project Name	Fund Code	FY	Unit 1/ Measure	Unit	2/ M \$
Prospect	Hershberger C&H - Season-long	NFRG RBRB CWKV	96	AMP	1	
Ashland	Conde - Deferred Rotation	NFRG RBRB CWKV	97	AMP	1	
Butte Falls	Lodgepole - Season-long	NFRG RBRB CWKV	97	AMP	1	
Prospect	Whaleback C&H - Season-long	NFRG RBRB CWKV	97	AMP	1	
Prospect	Butler Butte C&H - Season - long	NFRG RBRB CWKV	98	AMP	1	
Prospect	Buck Rock C&H - Season-long	NFRG RBRB CWKV	98	AMP	1	
Butte Falls	34-2 - Season-long	NFRG RBRB CWKV	99	AMP	1	
Prospect	Halifax C&H - Vacant	NFRG RBRB CWKV	99	AMP	1	

1/ AMP = Allotment Management Plan

2/ Project dollars will be based on AMP objectives.

Allotment Management Plans will incorporate all standards and guidelines as they are updated and/or modified. These AMP updates will be completed within ten years at a minimum. The schedule must remain flexible to accommodate new data and inventories, change in permittees, resource conditions, etc. This schedule will be shortened whenever possible. Some allotments may be updated more than once within the planning period.

Factors used to prioritize Allotment Management Plan updates:

Miles of riparian zone present. Generally give weight to anadromous habitat over resident. Condition of that riparian zone.

Wildlife - conflicts with key wildlife areas, such as big game winter range.

Botanical areas - grazing conflicts with identified botanical areas and/or RNAs.

Other, such as recreation, visuals, ORVs, etc.

Range - presence of poor and/or very poor condition land and/or downward trend in range condition. Lack of an improved management system or current system is not functioning properly. Forage utilization standards are being exceeded. Class of livestock is inappropriate. Basic soil and water damage is occurring (i.e., erosion, bank sloughing, etc.).

## WILDLIFE

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Applegate	Fish Pond Seeding	CWKV	90	Acres	38	4.7
Applegate	Redwood Snag Creation	CWKV	90	Structures	72	1.6
Applegate	Flumet Seeding	CWKV	90	Acres	36	1.5
Applegate	Sturgis Triple Seeding	CWKV	90	Acres	93	5.0
Applegate	Applegate Reservoir Turtle Habitat Improvement	NFWF	90	Structures	8	1.2
Applegate	Mule Mountain Burn	RMTR	90	Acres	50	2.0
Ashland	Various Locations Wildlife Tree Creation	CWKV	90	Structures	1032	18.6
Ashland	Wildlife Prescription Surveys Various Locations	CWKV	90	Acres	2418	5.6
Ashland	Guzzlers Various Locations	CWKV	90	Structures	3	10.5
Ashland	Road Closures Various Locations	CWKV	90	Structures	3	.5
Ashland	Mark/Tag Wildlife Trees Various Locations	CWKV	90	Structures	744	2.4
Ashland	Forage Improvement Short Creek Prairie	CWKV	90	Acres	24	5.7
Ashland	Wildlife Tree Creation Various Locations	CWKV	90	Structures	600	7.2
Ashland	Mark/Tag Wildlife Trees Various Locations	CWKV	90	Structures	6	1.7
Ashland	Road Closures Various Locations	CWKV	90	Structures	6	1.3
Ashland	Wildlife Prescription Survey Various Locations	CWKV	90	Acres	1916	2.0
Ashland	Forage Replacement Various Locations	CWKV	90	Acres	5	.9
Ashland	Forage Improvement Various Locations	NFWF	90	Acres	17	1.0
Butte Falls	Spotted Owl Monitoring (Mosquito)	NFWF	90	Surveys	1.0	1.7
Butte Falls	Spotted Owl Monitoring (Mud Springs)	CWKV	90	Surveys	1.0	1.7
Butte Falls	Owl Monitoring (SOHAs)	RMTR	90	Surveys	3.0	7.5
Butte Falls	Big Game Forage Improvement Fertilization	NFWF	90	Acres	20.0	1.0
Butte Falls	Deception Thin Gates	CWKV	90	Structures	6.0	4.8
Butte Falls	Indian Creek 11 Barriers	CWKV	90	Structures	3.0	.5
Butte Falls	Indian Creek 1 Gates	CWKV	90	Structures	6.0	4.1
Butte Falls	Juniper Barriers	CWKV	90	Structures	3.0	.4
Butte Falls	Mud Springs Gates	CWKV	90	Structures	4.0	2.2
Butte Falls	Wallman Barriers	CWKV	90	Structures	4.0	.8
Butte Falls	Umpire Thin Guzzler	CWKV	90	Structures	1.0	5.0
Butte Falls	High Wapiti Riparian Improvement	CWKV	90	Acres	1.0	.8
Butte Falls	Barley/West Rye Wildlife Tree Survey	CWKV	90	Acres	106.0	.7
Butte Falls	Jill Salvage Wildlife Tree Survey	CWKV	90	Acres	59.0	.4
Butte Falls	Jupiter Wildlife Tree Survey	CWKV	90	Acres	37.0	.3
Butte Falls	North Daniel Wildlife Tree Survey	CWKV	90	Acres	10.0	.1
Butte Falls	Wallman Wildlife Tree Survey	CWKV	90	Acres	200.0	1.0
Butte Falls	West Rye Wildlife Tree Survey	CWKV	90	Acres	341.0	2.4
Butte Falls	West Sump Wildlife Tree Survey	CWKV	90	Acres	10.0	.1

10-YEAR ACTIVITY SCHEDULES

WILDLIFE (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Butte Falls	High Wapiti Wildlife Tree Survey	CWKV	90	Acres	52.0	.3
Butte Falls	Scenic Wildlife Tree Survey	CWKV	90	Acres	68.0	.5
Butte Falls	Snake Wildlife Tree Survey	CWKV	90	Acres	39.0	.3
Butte Falls	Vino Wildlife Tree Survey	CWKV	90	Acres	280.0	1.4
Butte Falls	Barley/West Rye Forage Seed	CWKV	90	Acres	50.0	2.0
Butte Falls	Deception Thin Forage Seed	CWKV	90	Acres	111.0	4.4
Butte Falls	Hill Forage Seed	CWKV	90	Acres	65.0	2.6
Butte Falls	Indian Creek 1 Forage Seed	CWKV	90	Acres	150.0	6.0
Butte Falls	Mosquito Thin Forage Seed	CWKV	90	Acres	160.0	6.4
Butte Falls	Tie Thin Forage Seed	CWKV	90	Acres	68.0	2.7
Butte Falls	Four Bit Creek Fish Weirs	NFWF	90	Structures	3.0	3.5
Butte Falls	Ash Creek Willow Plant	NFWF	90	Acres	3.5	1.3
Prospect	Bear TS (T&E species)	CWKV	90	Acres	1	0.2
Prospect	Bootleg TS (Owl Monitor)	CWKV	90	Acres	1000	0.4
Prospect	Buckhorn TS (Snag creation)	CWKV	90	Structures	182	3.4
Prospect	Bull TS (Forage Seeding)	CWKV	90	Acres	7	0.8
Prospect	Bridge Salvage TS (Owl Monitor)	CWKV	90	Acres	200	0.4
Prospect	Castle TS (Owl Monitor)	CWKV	90	Acres	1000	0.4
Prospect	COB TS (Owl Monitor)	CWKV	90	Acres	1000	0.4
Prospect	Combine TS (Owl Monitor)	CWKV	90	Acres	1000	0.4
Prospect	Cope TS (Owl Monitor)	CWKV	90	Acres	1000	0.4
Prospect	Flat Removal II (Forage Seedling)	CWKV	90	Acres	20	2.2
Prospect	Flat Salvage (Forage Seeding)	CWKV	90	Acres	1	0.1
Prospect	Flat Salvage (Owl Monitor)	CWKV	90	Acres	200	0.4
Prospect	Fine TS (Owl Monitor)	CWKV	90	Acres	500	0.4
Prospect	Fir TS (Forage Seeding)	CWKV	90	Acres	2	0.4
Prospect	Green Acres II (Forage Seedling)	CWKV	90	Acres	4	0.4
Prospect	Hillcrest TS (Snag Creation)	CWKV	90	Structures	164	3.0
Prospect	Hillcrest TS (Forage Seeding)	CWKV	90	Acres	12	1.3
Prospect	Hop TS (Snag Creation)	CWKV	90	Structures	67	1.2
Prospect	Isolated TS (Wildlife Tree Inventory)	CWKV	90	Acres	142	0.5
Prospect	Isolated TS (Forage Seeding)	CWKV	90	Acres	90	9.6
Prospect	Jay TS (Owl Monitoring)	CWKV	90	Acres	1000	1.4
Prospect	Knob River (Forage Seeding)	CWKV	90	Acres	3	0.3
Prospect	K-Rock (T&E Species-plants)	CWKV	90	Acres	1	0.2
Prospect	Larson TS (Forage Seeding)	CWKV	90	Acres	3	0.3
Prospect	Lone Wolf II (Forage Seeding)	CWKV	90	Acres	10	1.0

**WILDLIFE (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Prospect	Lone Wolf II (Spring Develop)	CWKV	90	Structures	1	1.4
Prospect	Lost Creek II (Forage Seeding)	CWKV	90	Acres	6	0.6
Prospect	Mare TS (Owl Monitor)	CWKV	90	Acres	1000	2.1
Prospect	Max TS (Forage Seeding)	CWKV	90	Acres	1	0.1
Prospect	Meanader TS (Forage Seeding)	CWKV	90	Acres	4	0.4
Prospect	Minnesoda TS (Snag Creation)	CWKV	90	Structures	65	1.2
Prospect	Mooney TS (Fence Const)	CWKV	90	Structures	3	11.5
Prospect	Mooney TS (Willow Plant)	CWKV	90	Acres	3	3.5
Prospect	Mooney TS (Brush Distrib)	CWKV	90	Acres	1	0.6
Prospect	Nat TS (Snag Creation)	CWKV	90	Structures	500	9.3
Prospect	Needle TS (Snag Creation)	CWKV	90	Structures	169	3.1
Prospect	Old Bess 2 (Snag Creation)	CWKV	90	Structures	137	2.4
Prospect	Sunny II (Forage Seeding)	CWKV	90	Acres	5	0.5
Prospect	Upper Union (Snag Creation)	CWKV	90	Structures	96	1.8
Prospect	Ween TS (Snag Creation)	CWKV	90	Structures	17	0.3
Prospect	Wood TS (Snag Creation)	CWKV	90	Structures	75	1.4
Prospect	Wood TS (Forage Seeding)	CWKV	90	Acres	6	1.2
Prospect	Woodjacket (Forage Seeding)	CWKV	90	Acres	20	2.0
Prospect	Timber Support (T,E&S)	CWKV	90	Project	1	43.6
Applegate	Mulepost Sale Seeding	CWKV	91	Acres	22	0.7
Applegate	Summit Lake Seeding	CWKV	91	Acres	73	5.3
Applegate	Knobby Swan Snag Creation	CWKV	91	Structures	380	6.5
Applegate	Bourbon Sale Spring Fencing	CWKV	91	Structures	1	2.7
Applegate	Bourbon Sale Guzzler	CWKV	91	Structures	1	3.6
Applegate	Mulepost Sale Guzzler	CWKV	91	Structures	1	6.4
Applegate	Wildlife Mitigation Areas Rehabilitation	NFWF	91	Acres	5	3.0
Applegate	Sugar Loaf Sale Brushfield Conversion	CWKV	91	Acres	30	3.3
Applegate	Sensitive Species Surveys (Support)	NFWF	91	Acres	1500	7.0
Ashland	Road Closures Various Locations	CWKV	91	Structures	10	5.0
Ashland	Wildlife Prescription Survey Various Locations	CWKV	91	Acres	1000	2.5
Ashland	Wildlife Tree Topping Various Locations	CWKV	91	Structures	200	10.0
Ashland	Wildlife Tree Retention Ironsprings TS	CWKV	91	Acres	300	17.7
Ashland	Wildlife Tree Retention Weedhopper TS	CWKV	91	Acres	40	2.4
Ashland	Monitor Elk Winter Range	CWKV	91	Acres	1000	5.0
Butte Falls	Spotted Owl Monitoring (Elk 15)	CWKV	91	Surveys	1.0	5.7
Butte Falls	Head Wildlife Tree Survey	CWKV	91	Acres	306.0	2.7
Butte Falls	Spotted Owl Monitoring (Mosquito)	NFWF	91	Surveys	1.0	1.5



10-YEAR ACTIVITY SCHEDULES

**WILDLIFE (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Butte Falls	Spotted Owl Monitoring (Mud Springs)	CWKV	91	Surveys	1.0	2.0
Butte Falls	Barley Bentonite Pond	CWKV	91	Structures	1.0	.9
Butte Falls	Barley Guzzler	CWKV	91	Structures	1.0	4.7
Butte Falls	Brandy Guzzler	CWKV	91	Structures	1.0	4.8
Butte Falls	Gypsy/Hoe Thin Forage Wildlife Tree Survey	CWKV	91	Acres	14.0	.2
Butte Falls	Hill Wildlife Tree Survey	CWKV	91	Acres	159.0	.8
Butte Falls	Hill Pond Development	CWKV	91	Structures	2.0	4.5
Butte Falls	Hill Gate	CWKV	91	Structures	1.0	.6
Butte Falls	Indian Creek Gates	CWKV	91	Structures	6.0	4.1
Butte Falls	Tie Thin Move Trough	CWKV	91	Structures	1.0	.8
Butte Falls	West Rye Gates	CWKV	91	Structures	4.0	4.8
Butte Falls	Acorn Elk Telemetry Survey	CWKV	91	Acres	648.0	.6
Butte Falls	Barley/West Rye Forage Seeding	CWKV	91	Acres	50.0	2.8
Butte Falls	Bound Elk Telemetry Survey, Collars	CWKV	91	Acres	232.0	2.5
Butte Falls	Camp 2 Browse Rejuvenation	NFWF	91	Acres	25.0	4.0
Butte Falls	Clement Wildlife Tree Survey	CWKV	91	Acres	54.0	.3
Butte Falls	Elk 15 Forage Seeding	CWKV	91	Acres	56.0	2.5
Butte Falls	Juniper Forage Seeding	CWKV	91	Acres	41.0	1.9
Butte Falls	Lil' Bit Forage Seeding	CWKV	91	Acres	91.0	4.1
Butte Falls	Mosquito Thin Elk Telemetry Survey	CWKV	91	Acres	986.0	2.7
Butte Falls	Mud Springs Forage Seeding	CWKV	91	Acres	130.0	5.6
Butte Falls	Parker Meadows Release	NFWF	91	Acres	5.0	.6
Butte Falls	Vino Riparian Improvement	CWKV	91	Acres	1.0	.8
Butte Falls	Wallman Forage Seeding	CWKV	91	Acres	117.0	5.3
Butte Falls	West Rye Forage Seeding	CWKV	91	Acres	66.0	3.0
Butte Falls	West Rye/Willow Prairie Improvement	CWKV	91	Acres	22.0	2.8
Butte Falls	Spotted Owl Monitoring (Willow)	CWKV	91	Surveys	1.0	2.3
Butte Falls	Big Game Habitat Plan	NFWF	91	Plans	1	5.0
Prospect	Bear TS (T&E Species)	CWKV	91	Acres	1	0.2
Prospect	Bird TS (Snag Creation)	CWKV	91	Structures	261	5.4
Prospect	Bird TS (Forage Seeding)	CWKV	91	Acres	4	0.9
Prospect	Castle TS (Forage Seeding)	CWKV	91	Acres	86	9.6
Prospect	COB TS (Wildlife Tree Inventory)	CWKV	91	Acres	55	0.2
Prospect	Clear Creek (Snag Creation)	CWKV	91	Structures	176	3.9
Prospect	Clear Creek (Forage Seeding)	CWKV	91	Acres	1	0.1
Prospect	Coalmine II (Wild Tree Inventory)	CWKV	91	Acres	130	0.5
Prospect	Coalmine II (forage Seeding)	CWKV	91	Acres	2	0.2

## WILDLIFE (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Prospect	Elk TS (Snag Creation)	CWKV	91	Structures	190	3.7
Prospect	Fine TS (Owl Monitor)	CWKV	91	Acres	500	0.4
Prospect	Fine TS (Forage Seeding)	CWKV	91	Acres	50	5.6
Prospect	Finger TS (T&E species)	CWKV	91	Project	1	2.5
Prospect	Fork TS (Wild Tree Inventory)	CWKV	91	Acres	135	0.5
Prospect	Ginkgo TS (Snag Creation)	CWKV	91	Structures	18	0.4
Prospect	Hip TS (Owl Monitor)	CWKV	91	Acres	500	0.4
Prospect	Hop TS (Forage Seeding)	CWKV	91	Acres	2	0.2
Prospect	Isolated TS (Owl Monitor)	CWKV	91	Acres	200	0.3
Prospect	Jay TS (Owl Monitor)	CWKV	91	Acres	1000	1.6
Prospect	Jaw TS (T&E Species)	CWKV	91	Project	1	2.5
Prospect	Kettle Rock (Wild Tree Inv)	CWKV	91	Acres	200	0.8
Prospect	Larson TS (Snag Creation)	CWKV	91	Structures	22	0.4
Prospect	Larson TS (Forage Seeding)	CWKV	91	Acres	3	0.6
Prospect	Little Flat (Wildlife Tree Inventory)	CWKV	91	Acres	23	0.1
Prospect	Little Flat (Forage Seeding)	CWKV	91	Acres	6	0.7
Prospect	Lost Creek II (Snag Creation)	CWKV	91	Structures	81	1.6
Prospect	Loop TS (Wildlife Tree Inventory)	CWKV	91	Acres	245	1.0
Prospect	Luck TS (Owl Monitor)	CWKV	91	Acres	1000	0.4
Prospect	Luck TS (Guzzler)	CWKV	91	Structures	2	9.1
Prospect	K-Rock (T&E Species)	CWKV	91	Acres	1	0.2
Prospect	Max TS (Wildlife Tree Inventory)	CWKV	91	Acres	96	0.4
Prospect	Mid TS (Forage Seeding)	CWKV	91	Acres	1	0.1
Prospect	Miser TS (Owl Monitor)	CWKV	91	Acres	1000	0.4
Prospect	Mooney TS (Meadow Fertilization)	CWKV	91	Acres	25	2.8
Prospect	Mooney TS (Wildlife Tree Inventory)	CWKV	91	Acres	129	0.5
Prospect	On TS (Wildlife Tree Inventory)	CWKV	91	Acres	180	0.7
Prospect	Pamper II (Owl Monitor)	CWKV	91	Acres	1000	0.4
Prospect	Riverway (Wildlife Tree Inventory)	CWKV	91	Acres	83	0.3
Prospect	Riverway (Forage Seeding)	CWKV	91	Acres	8	0.9
Prospect	Rotor TS (Owl Monitor)	CWKV	91	Acres	1000	0.4
Prospect	Sevenlicks (Owl Monitor)	CWKV	91	Acres	1000	0.8
Prospect	Smoke TS (Wildlife Tree Inventory)	CWKV	91	Acres	120	0.7
Prospect	Smoke TS (Forage Seeding)	CWKV	91	Acres	18	2.0
Prospect	Smoke TS (Gate Installation)	CWKV	91	Structures	1	5.3
Prospect	Star TS (Wildlife Tree Inventory)	CWKV	91	Acres	108	0.4
Prospect	Star TS (Forage Seeding)	CWKV	91	Acres	56	6.3

10-YEAR ACTIVITY SCHEDULES

WILDLIFE (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Prospect	Stella Mistle (Snag Creation)	CWKV	91	Structures	144	2.8
Prospect	Sun Period (Wildlife Tree Inventory)	CWKV	91	Acres	225	0.9
Prospect	Tan TS (Owl Monitor)	CWKV	91	Acres	500	0.4
Prospect	Varmit TS (Owl Monitor)	CWKV	91	Acres	1000	0.8
Prospect	Ween TS (Snag Creation)	CWKV	91	Structures	17	0.3
Prospect	Whiskey (Wildlife Tree Inventory)	CWKV	91	Acres	71	0.3
Prospect	Whiskey (Forage Seeding)	CWKV	91	Acres	7	0.8
Prospect	Willow TS (Forage Seeding)	CWKV	91	Acres	7	0.8
Prospect	Woodruff Flats (Forage Seeding)	NFWF	91	Acres	12	1.3
Prospect	Woodruff Flats (Road Restoration)	NFWF	91	Miles	5	5.0
Prospect	Woodruff Flats (Prescribed Burn)	NFWF	91	Acres	200	6.0
Prospect	Woodruff Flats (Willow Plant)	NFWF	91	Acres	2	1.0
Prospect	District Wide (SOHA Monitor)	NFWF	91	Plans	11	23.8
Prospect	Misc. TS (Forage Seeding)	CWKV	91	Acres	25	2.8
Prospect	Misc. TS (Wildlife Tree Inventory)	CWKV	91	Acres	200	0.8
Prospect	Timber Support (T,E&S)	NFWF	91	Plans	1	51.0
Prospect	Big Game Habitat Plan	NFWF	91	Plans	1	5.0
Forest wide	T&E Mammal Study	NFWF	92	Plans	1	10.0
Applegate	Bloomfield Seeding	CWKV	92	Acres	25	1.1
Applegate	Sun Horse Seeding	CWKV	92	Acres	85	4.3
Applegate	Steamboat Sale Seeding	CWKV	92	Acres	5	0.4
Applegate	Bloomfield Sale Guzzler	CWKV	92	Structures	1	4.1
Applegate	Ranch Sale Guzzler Rehabilitation	CWKV	92	Structures	1	6.9
Applegate	Wildlife Mitigation Areas	NFWF	92	Acres	5	3.0
Applegate	Sensitive Species Surveys (Support)	NFWF	92	Acres	2000	8.0
Applegate	Timber Sale Sensitive Species Monitoring	CWKV	92	Acres	10	1.8
Applegate	Big Game Habitat Plan	NFWF	92	Plans	1	5.0
Ashland	Plant Hardwood Species Ironspring TS	CWKV	92	Acres	10	4.2
Ashland	Wildlife Prescription Survey Various Locations	CWKV	92	Acres	1000	2.5
Ashland	Wildlife Tree Topping Various Locations	CWKV	92	Structures	200	10.0
Ashland	Road Closures Various Locations	CWKV	92	Acres	10	5.0
Ashland	Guzzlers Various Locations (Willows)	CWKV	92	Acres	3	10.5
Ashland	Big Game Habitat Plan	NFWF	92	Plans	1	5.0
Butte Falls	Indian Creek 11 Wildlife Tree Survey	CWKV	92	Acres	128	.9
Butte Falls	River Thin Guzzler	CWKV	92	Structures	1	6.0
Butte Falls	Rust Thin Road Closure	CWKV	92	Structures	1	.8
Butte Falls	Rust Thin Guzzlers	CWKV	92	Structures	2	11.4

## WILDLIFE (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Butte Falls	Upper Gates	CWKV	92	Structures	3	1.6
Butte Falls	Boulder/Pump Wildlife Survey	CWKV	92	Acres	41	.5
Butte Falls	Gypsy/Hoe Thin Forage Seeding	CWKV	92	Acres	51	3.1
Butte Falls	River Thin Forage Seeding	CWKV	92	Acres	5	.3
Butte Falls	West Beaver Forage Seeding	CWKV	92	Acres	1	2.8
Butte Falls	Spotted Owl Monitoring (Mosquito)	NFWF	92	Surveys	1	1.5
Butte Falls	Spotted Owl Monitoring (Mud Springs)	CWKV	92	Surveys	1	2.2
Butte Falls	Boulder/Pump Barriers	CWKV	92	Structures	4	1.1
Butte Falls	Jill Barriers	CWKV	92	Structures	1	.2
Butte Falls	Jill Salvage Wildlife Tree Create	CWKV	92	Structures	59	1.0
Butte Falls	Lil' Willie Gates	CWKV	92	Structures	2	1.2
Butte Falls	Wallman Wildlife Tree Create	CWKV	92	Structures	200	1.0
Butte Falls	Fee Forage Seeding	CWKV	92	Acres	50	4.1
Butte Falls	Glade Browse Rejuvenation	CWKV	92	Acres	10	1.3
Butte Falls	Lil' Willie Wildlife Tree Survey	CWKV	92	Acres	222	1.3
Butte Falls	Umpire Thin Browse Rejuvenation	CWKV	92	Acres	10	1.0
Prospect	Bootleg TS (Owl Monitor)	CWKV	92	Acres	1000	0.4
Prospect	Bootleg TS (Snag Creation)	CWKV	92	Structures	30	0.6
Prospect	Castle TS (Owl Monitor)	CWKV	92	Acres	1000	0.4
Prospect	COB TS (Owl Monitor)	CWKV	92	Acres	1000	0.4
Prospect	Combine TS (Owl Monitor)	CWKV	92	Acres	1000	0.4
Prospect	Combine TS (Wildlife Tree Inventory)	CWKV	92	Acres	189	0.8
Prospect	Cope TS (Wildlife Tree Inventory)	CWKV	92	Acres	295	1.2
Prospect	Cope TS (Owl Monitor)	CWKV	92	Acres	1000	0.4
Prospect	Ez TS (Gate Installation)	CWKV	92	Structures	1	5.3
Prospect	Ez TS (Forage Seeding)	CWKV	92	Acres	60	7.0
Prospect	Fine TS (Wildlife Tree Inventory)	CWKV	92	Acres	70	0.4
Prospect	Finger TS (T&E Species)	CWKV	92	Plans	1	2.5
Prospect	Fos TS (Wildlife Tree Inventory)	CWKV	92	Acres	100	0.4
Prospect	Hip TS (Owl Monitor)	CWKV	92	Acres	500	0.4
Prospect	Jay TS (Owl Monitor)	CWKV	92	Acres	1000	1.7
Prospect	Jay TS (Snag Creation)	CWKV	92	Structures	190	3.8
Prospect	Jaw TS (T&E Species)	CWKV	92	Plans	1	0.5
Prospect	Jaw TS (Forage Seeding)	CWKV	92	Acres	160	18.5
Prospect	K-Rock (T&E Species-plants)	CWKV	92	Acres	1	0.2
Prospect	Mare TS (Owl Monitor)	CWKV	92	Acres	1000	2.4
Prospect	Mare TS (Wildlife Tree Inventory)	CWKV	92	Acres	97	0.4

10-YEAR ACTIVITY SCHEDULES

WILDLIFE (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Prospect	Mill TS (Snag Creation)	CWKV	92	Structures	193	3.9
Prospect	Miser TS ( Owl Monitor)	CWKV	92	Acres	1000	0.4
Prospect	Mooney TS (Meadow Fertilization)	CWKV	92	Acres	25	2.9
Prospect	Nine TS (Wildlife Tree Inventory)	CWKV	92	Acres	260	1.1
Prospect	Obie I (Wildlife Tree Inventory)	CWKV	92	Acres	161	0.7
Prospect	Piggy TS (Wildlife Tree Inventory)	CWKV	92	Acres	79	0.3
Prospect	Rotor TS (Owl Monitor)	CWKV	92	Acres	1000	0.4
Prospect	Sevenlicks TS (Owl Monitor)	CWKV	92	Acres	1000	0.8
Prospect	Star TS (Forage Seeding)	CWKV	92	Acres	1	0.1
Prospect	Tan TS (Owl Monitor)	CWKV	92	Acres	500	0.4
Prospect	Turlock TS (Forage Seeding)	CWKV	92	Acres	120	13.9
Prospect	Varmit TS (Wildlife Tree Inventory)	CWKV	92	Acres	192	0.6
Prospect	Varmit TS (Owl Monitor)	CWKV	92	Acres	1000	0.9
Prospect	Ween TS (Forage Seeding)	CWKV	92	Acres	2	0.2
Prospect	West Foster II (Snag Creation)	CWKV	92	Acres	177	3.6
Prospect	Whiskey TS (Forage Seeding)	CWKV	92	Acres	5	0.6
Prospect	Windy TS (Snag Creation)	CWKV	92	Structures	116	2.4
Prospect	Willow TS (Wildlife Tree Inventory)	CWKV	92	Acres	401	1.7
Prospect	Misc. TS (Forage Seeding)	CWKV	92	Acres	25	2.9
Prospect	Misc. TS (Snag Creation)	CWKV	92	Structures	75	1.5
Prospect	Misc. TS (Wildlife Tree Inventory)	CWKV	92	Acres	350	1.5
Prospect	District Wide (SOHA Monitor)	NFWF	92	Plans	11	27.8
Prospect	Timber Support (T,E&S)	NFWF	92	Plans	1	59.7
Applegate	Winter Range Burn and Seeding	NFWF	93	Acres	50	5.0
Applegate	Dreamboat Sale Seeding	CWKV	93	Acres	76	2.9
Applegate	Shasta Removal Seeding	CWKV	93	Acres	134	7.5
Applegate	Ridgetop Guzzler	NFWF	93	Structures	1	4.0
Applegate	Fruit Tree Pruning	NFWF	93	Structures	10	0.5
Applegate	Sensitive Species Surveys (Support)	NFWF	93	Acres	2000	8.0
Applegate	Sensitive Species Habitat Improvement	NFWF	93	Structures	5	1.2
Ashland	Guzzlers Various Locations	CWKV	93	Structures	1	3.5
Ashland	Guzzlers Various Locations	NFWF	93	Structures	1	3.5
Ashland	Wildlife Tree Creation Various Locations	CWKV	93	Structures	250	3.0
Ashland	Forage Improvement Various Locations	CWKV	93	Structures	10	.6
Ashland	Forage Improvement Various Locations	NFWF	93	Structures	10	.6
Ashland	Wildlife Prescription Surveys Various Locations	CWKV	93	Structures	2000	4.6
Ashland	Road Closures Various Locations	CWKV	93	Structures	5	.8

**WILDLIFE (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Ashland	Osprey Nest Enhancement Ironspring TS only	CWKV	93	Structures	3	1.5
Ashland	Mark/Tag Wildlife Trees Various Locations	CWKV	93	Structures	30	21.0
Ashland	Guzzlers Various Locations	CWKV	93	Structures	1	3.5
Butte Falls	Spotted Owl Monitoring (Mud Puddle)	CWKV	93	Surveys	1	2.8
Butte Falls	Head Guzzler	CWKV	93	Structures	1	5.6
Butte Falls	Jeep Wildlife Tree Survey	CWKV	93	Acres	100	.8
Butte Falls	Jeep Forage Seeding	CWKV	93	Acres	60	3.3
Butte Falls	Jeep Gates	CWKV	93	Structures	2	1.6
Butte Falls	Lookout Thin Gates	CWKV	93	Structures	4	1.7
Butte Falls	South Rustler Gates	CWKV	93	Structures	5	2.1
Butte Falls	Rust Thin Forage Seeding	CWKV	93	Acres	30	1.6
Butte Falls	Misfit Thin Mature Habitat Monitoring	CWKV	93	Acres	300	2.0
Butte Falls	Spotted Owl Monitoring (Mosquito)	CWKV	93	Surveys	1	1.5
Butte Falls	Boulder/Pump Guzzler	CWKV	93	Structures	1	5.0
Butte Falls	Jill Guzzler	CWKV	93	Structures	1	5.0
Butte Falls	Misfit Thin Road Closures/Remove	CWKV	93	Structures	11	1.8
Butte Falls	Mud Puddle Gates	CWKV	93	Structures	4	2.9
Prospect	Ace TS (Owl Monitor)	CWKV	93	Acres	1000	0.3
Prospect	Bitter TS (Snag Creation)	CWKV	93	Structures	231	4.8
Prospect	Breaks TS (Snag Creation)	CWKV	93	Structures	495	10.4
Prospect	Bootleg TS (Snag Creation)	CWKV	93	Structures	21	0.5
Prospect	Eye TS (Snag Creation)	CWKV	93	Structures	167	3.5
Prospect	Fine TS (Owl Monitor)	CWKV	93	Acres	500	0.5
Prospect	Finger TS (Wildlife Tree Inventory)	CWKV	93	Acres	100	0.4
Prospect	Fir TS (Snag Creation)	CWKV	93	Structures	156	3.3
Prospect	Hip TS (Owl Monitor)	CWKV	93	Acres	500	0.5
Prospect	Jay TS (Owl Monitor)	CWKV	93	Acres	1000	2.0
Prospect	Jaw TS (Wildlife Tree Inventory)	CWKV	93	Acres	200	0.9
Prospect	Kanob II (Snag Creation)	CWKV	93	Structures	171	3.6
Prospect	Kanob II (Forage Seeding)	CWKV	93	Acres	2	0.2
Prospect	K-Rock TS (T&E Species-Plants)	CWKV	93	Acres	1	0.2
Prospect	K-Rock TS (Owl Monitor)	CWKC	93	Acres	1000	0.4
Prospect	Luck TS (Owl Monitor)	CWKV	93	Acres	1000	0.4
Prospect	Luck TS (Snag Creation)	CWKV	93	Structures	151	3.2
Prospect	Loop TS (LWD Dispersal)	CWKV	93	Structures	1	0.8
Prospect	Mooney TS (Meadow Fertilization)	CWKV	93	Acres	25	3.0
Prospect	Old Bess 2 (Snag Creation)	CWKV	93	Structures	131	2.8

10-YEAR ACTIVITY SCHEDULES

**WILDLIFE (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Prospect	Pamper II (Snag Creation)	CWKV	93	Structures	29	0.6
Prospect	Pamper II (Owl Monitor)	CWKV	93	Acres	1000	0.4
Prospect	Rotor (Owl Monitor)	CWKV	93	Acres	1000	0.5
Prospect	Rotor (Forage Seeding)	CWKV	93	Acres	75	9.0
Prospect	Sevenlicks (Wildlife Tree Inventory)	CWKV	93	Acres	150	0.7
Prospect	Sevenlicks (Owl Monitor)	CWKV	93	Acres	1000	0.9
Prospect	Sevenlicks (Forage Seeding)	CWKV	93	Acres	15	1.8
Prospect	Shoe II (Snag Creation)	CWKV	93	Structures	321	6.5
Prospect	Silver TS (Wildlife Tree Inventory)	CWKV	93	Acres	173	0.8
Prospect	Silver TS (Road Closing)	CWKV	93	Structures	3	1.4
Prospect	Tan TS (Wildlife Tree Inventory)	CWKV	93	Acres	150	0.7
Prospect	Tan TS (Owl Monitor)	CWKV	93	Acres	500	0.5
Prospect	Top TS (Snag Creation)	CWKV	93	Structures	208	4.4
Prospect	Turlock TS (Wildlife Tree Inventory)	CWKV	93	Acres	219	1.0
Prospect	Misc. TS (Forage Seeding)	CWKV	93	Acres	40	4.8
Prospect	Misc. TS (Wildlife Tree Inventory)	CWKV	93	Acres	325	1.4
Prospect	District-Wide (SOHA Monitor)	NFWF	93	Plans	11	32.5
Prospect	Timber Support (T,E&S)	NFWF	93	Plans	1	69.8
Applegate	Sensitive Species Surveys (Support)	NFWF	94	Acres	2000	8.0
Applegate	Stinger O'Coat Seeding	CWKV	94	Acres	60	4.2
Applegate	Fruit Tree Pruning	NFWF	94	Structures	10	0.6
Applegate	Meadow Fertilizing (O'Brien-Sturgis)	NFWF	94	Acres	4	0.8
Applegate	Fence Wildlife Habitat Area (L. Squaw Lake)	NFWF	94	Acres	2	1.3
Applegate	Plant Seed Fertilization Wildlife Area (L. Squaw Lake)	NFWF	94	Acres	2	1.0
Ashland	Guzzler Various Locations	NFWF	94	Structures	1	3.5
Ashland	Forage Improvement Various Locations	CWKV	94	Acres	10	.6
Ashland	Forage Improvement Various Locations	NFWF	94	Acres	10	.6
Ashland	Wildlife Prescription Surveys Various Locations	CWKV	94	Acres	2000	4.6
Ashland	Wildlife Tree Creation Various Locations	CWKV	94	Structures	250	4.5
Ashland	Road Closures Various Locations	CWKV	94	Acres	5	1.1
Ashland	Mark/Tag Wildlife Trees Various Locations	CWKV	94	Acres	6	1.7
Butte Falls	Elk 15 Wildlife Tree Create	CWKV	94	Structures	94	2.5
Butte Falls	Bear Thin Forage Seeding	CWKV	94	Acres	50	3.0
Butte Falls	Mud Puddle Forage Seeding	CWKV	94	Acres	75	4.4
Butte Falls	Mud Puddle Browse Rejuvenation	CWKV	94	Acres	20	3.0
Butte Falls	Mud Puddle Wildlife Tree Survey	CWKV	94	Acres	64	1.0
Butte Falls	Boot Wildlife Tree Survey	CWKV	94	Acres	122	1.3

## WILDLIFE (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Butte Falls	Boot Road Closures	CWKV	94	Structures	2	1.1
Butte Falls	Dwarf Road Closures	CWKV	94	Structures	1	1.5
Butte Falls	Boot Forage Seeding	CWKV	94	Acres	64	5.0
Butte Falls	Head Road Closure	CWKV	94	Structures	3	1.3
Butte Falls	Misfit Thin Forage Seeding	CWKV	94	Acres	60	3.5
Butte Falls	South McCloughin Forage Seeding	CWKV	94	Acres	77	5.3
Prospect	Bootleg TS (Owl Monitor)	CWKV	94	Acres	1000	0.4
Prospect	Bull TS (Snag Creation)	CWKV	94	Structures	51	1.1
Prospect	Butte TS (Snag Creation)	CWKV	94	Structures	280	6.1
Prospect	Castle TS (Owl Monitor)	CWKV	94	Acres	1000	0.4
Prospect	COB TS (Owl Monitor)	CWKV	94	Acres	1000	0.4
Prospect	Combine TS (Snag Creation)	CWKV	94	Structures	249	5.4
Prospect	Combine TS (Owl Monitor)	CWKV	94	Acres	1000	0.5
Prospect	Cope TS (Owl Monitor)	CWKV	94	Acres	1000	0.4
Prospect	East TS (Wildlife Tree Inventory)	CWKV	94	Acres	135	0.6
Prospect	Elk TS (Snag Creation)	CWKV	94	Structures	86	1.9
Prospect	Ginkgo TS (Snag Creation)	CWKV	94	Structures	62	1.4
Prospect	Hip TS (Wildlife Tree Inventory)	CWKV	94	Acres	100	0.5
Prospect	Jay TS (Owl Monitor)	CWKV	94	Acres	1000	1.8
Prospect	Lost Ck II (Snag Creation)	CWKV	94	Structures	36	0.6
Prospect	Luck TS (Snag Creation)	CWKV	94	Structures	140	3.1
Prospect	Mare TS (Owl Monitor)	CWKV	94	Acres	1000	2.5
Prospect	Max TS (Wildlife Tree Inventory)	CWKV	94	Acres	96	0.5
Prospect	Mid TS (Snag Creation)	CWKV	94	Structures	229	5.0
Prospect	Miser TS (Wildlife Tree Inventory)	CWKV	94	Acres	150	0.7
Prospect	Rotor TS (Wildlife Tree Inventory)	CWKV	94	Acres	125	0.6
Prospect	Sideslope TS (Snag Creation)	CWKV	94	Structures	263	5.8
Prospect	Star TS (Snag Creation)	CWKV	94	Structures	199	4.3
Prospect	Misc. TS (Forage Seeding)	CWKV	94	Acres	55	6.9
Prospect	Misc. TS (Wildlife Tree Inventory)	CWKV	94	Acres	350	1.6
Prospect	District-Wide (SOHA Monitor)	NFWF	94	Plans	11	38.0
Prospect	Timber Support (T,E&S)	NFWF	94	Plans	1	81.7
Applegate	Timber Sale Seeding	CWKV	95	Acres	150	7.0
Applegate	Timber Sale Snag Creation	CWKV	95	Structures	100	3.0
Applegate	Timber Sale Guzzler	CWKV	95	Structures	1	4.5
Applegate	Winter Range Burn and Seeding	NFWF	95	Acres	50	5.0
Applegate	Wildlife Mitigation Area Rehabilitation	NFWF	95	Acres	5	3.0



## WILDLIFE (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Applegate	Meadow Fertilizing (Waters Gulch)	NFWF	95	Acres	4	0.8
Applegate	Sensitive Species Surveys (Support)	NFWF	95	Acres	2000	8.0
Applegate	Timber Sale Sensitive Species Monitor	CWKV	95	Acres	10	2.0
Ashland	Guzzlers Various Locations	CWKV	95	Structures	1	3.5
Ashland	Guzzlers Various Locations	NFWF	95	Structures	1	3.5
Ashland	Wildlife Tree Creation Various Locations	CWKV	95	Structures	250	4.5
Ashland	Forage Improvement Various Locations	CWKV	95	Acres	10	.6
Ashland	Forage Improvement Various Locations	NFWF	95	Acres	10	.6
Ashland	Wildlife Prescription Surveys Various Locations	CWKV	95	Acres	2000	4.6
Ashland	Mark/Tag Wildlife Trees Various Locations	CWKV	95	Structures	6	1.7
Ashland	Road Closures Various Locations	CWKV	95	Structures	5	1.1
Butte Falls	West Beaver Wildlife Tree Create	CWKV	95	Structures	173	3.5
Butte Falls	Head Wildlife Tree Create	CWKV	95	Structures	306	6.5
Butte Falls	Jeep Wildlife Tree Create	CWKV	95	Structures	100	2.0
Butte Falls	South Rustler Wildlife Tree Create	CWKV	95	Structures	225	5.0
Butte Falls	Mud Puddle Wildlife Tree Create	CWKV	95	Structures	64	1.6
Butte Falls	Twin Pines Wildlife Tree Survey	CWKV	95	Acres	134	1.0
Butte Falls	Whyno Gates	CWKV	95	Structures	4	3.8
Butte Falls	Whyno Wildlife Tree Survey	CWKV	95	Acres	287	2.3
Butte Falls	Cat Thin Forage Seeding	CWKV	95	Acres	26	1.8
Butte Falls	Dwarf Wildlife Tree Survey	CWKV	95	Acres	20	.3
Prospect	Castle TS (Snag Creation)	CWKV	95	Structures	60	1.3
Prospect	COB TS (Wildlife Tree Inventory)	CWKV	95	Acres	55	0.3
Prospect	Cope TS (Snag Creation)	CWKV	95	Structures	88	1.9
Prospect	Flat Removal 2 (Snag Creation)	CWKV	95	Structures	134	2.6
Prospect	Fork TS (Wildlife Tree Inventory)	CWKV	95	Acres	135	0.6
Prospect	Hershcrossing TS (Snag Creation)	CWKV	95	Structures	111	2.7
Prospect	Isolated TS (Snag Creation)	CWKV	95	Structures	198	4.4
Prospect	Jay TS (Owl Monitor)	CWKV	95	Acres	1000	1.8
Prospect	Kenobe TS (Snag Creation)	CWKV	95	Structures	275	5.6
Prospect	K-Rock TS (Snag Creation)	CWKV	95	Structures	339	7.7
Prospect	K-Rock TS (Owl Monitor)	CWKV	95	Acres	1000	0.4
Prospect	Luck TS (Owl Monitor)	CWKV	95	Acres	1000	0.5
Prospect	Max TS (Snag Creation)	CWKV	95	Structures	163	3.5
Prospect	On TS (Snag Creation)	CWKV	95	Structures	20	0.5
Prospect	Pamper II (Snag Creation)	CWKV	95	Structures	134	2.4
Prospect	Pamper II (Owl Monitor)	CWKV	95	Acres	1000	0.4

## WILDLIFE (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Prospect	Riverway TS (Wildlife Tree Inventory)	CWKV	95	Acres	83	0.4
Prospect	Sun Period (Wildlife Tree Inventory)	CWKV	95	Acres	225	1.1
Prospect	Upper Flat TS (Snag Creation)	CWKV	95	Structures	227	5.4
Prospect	Misc. TS (Forage Seeding)	CWKV	95	Acres	35	4.6
Prospect	Misc. TS (Wildlife Tree Inventory)	CWKV	95	Acres	375	1.5
Prospect	Misc. TS (Snag Creation)	CWKV	95	Structures	550	10.7
Prospect	District Wide (SOHA Monitor)	NFWF	95	Plans	11	44.5
Prospect	Timber Support (T,E&S)	NFWF	95	Plans	1	95.6
Applegate	Timber Sale Seeding	CWKV	96	Acres	150	7.0
Applegate	Timber Sale Snag Creation	CWKV	96	Structures	100	3.5
Applegate	Timber Sale Guzzler	CWKV	96	Structures	1	4.5
Applegate	Meadow Fertilizing (Generic)	NFWF	96	Acres	5	1.0
Applegate	Fruit Tree Planting and Protection	NFWF	96	Structures	20	1.2
Applegate	Sensitive Species Surveys (Support)	NFWF	96	Acres	2000	8.0
Applegate	Sensitive Species Habitat Improvement	NFWF	96	Structures	5	1.4
Applegate	Timber Sale Sensitive Species Monitoring	CWKV	96	Acres	10	2.0
Ashland	Guzzlers Various Locations	NFWF	96	Structures	1	3.5
Ashland	Forage Improvement Various Locations	CWKV	96	Structures	10	.6
Ashland	Forage Improvement Various Locations	NFWF	96	Structures	10	.6
Ashland	Wildlife Prescription Surveys Various Locations	CWKV	96	Acres	2000	4.6
Ashland	Wildlife Tree Creation Various Locations	CWKV	96	Structures	250	4.5
Ashland	Road Closures Various Locations	CWKV	96	Structures	5	1.1
Ashland	Mark/Tag Wildlife Trees Various Locations	CWKV	96	Structures	6	1.7
Ashland	Guzzlers Various Locations	CWKV	96	Structures	1	3.5
Butte Falls	Wildlife Tree Surveys	CWKV	96	Acres	420	6.3
Butte Falls	Forage Seeding	CWKV	96	Acres	290	20.0
Butte Falls	Road Closures	CWKV	96	Structures	8	6.0
Butte Falls	Elk Telemetry Monitoring	CWKV	96	Acres	400	2.0
Butte Falls	Wildlife Tree Create	CWKV	96	Structures	100	2.5
Butte Falls	Browse Rejuvenation	CWKV	96	Acres	10	2.0
Butte Falls	Spotted Owl Monitoring	CWKV	96	Surveys	3	4.0
Prospect	Bootleg TS (Snag Creation)	CWKV	96	Structures	11	0.3
Prospect	COB TS (Snag Creation)	CWKV	96	Structures	55	1.3
Prospect	Cope TS (Owl Monitor)	CWKV	96	Acres	1000	0.5
Prospect	Flat Slav TS (Snag Creation)	CWKV	96	Structures	20	0.5
Prospect	Fork TS (Snag Creation)	CWKV	96	Structures	149	3.5
Prospect	FOS TS (Wildlife Tree Inventory)	CWKV	96	Acres	100	0.5

10-YEAR ACTIVITY SCHEDULES

WILDLIFE (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Prospect	K-Rock TS (Snag Creation)	CWKV	96	Structures	291	6.0
Prospect	Mare TS (Wildlife Tree Inventory)	CWKV	96	Acres	97	0.5
Prospect	Obie TS (Wildlife Tree Inventory)	CWKV	96	Acres	161	0.8
Prospect	Piggy TS (Wildlife Tree Inventory)	CWKV	96	Acres	79	0.4
Prospect	Riverway TS (Snag Creation)	CWKV	96	Structures	58	1.4
Prospect	Sun Period TS (Snag Creation)	CWKV	96	Structures	58	1.4
Prospect	Whiskey TS (Snag Creation)	CWKV	96	Structures	83	1.6
Prospect	Misc. TS (Forage Seeding)	CWKV	96	Acres	65	8.8
Prospect	Misc. TS (Wildlife Tree Inventory)	CWKV	96	Acres	450	2.2
Prospect	Misc. TS (Snag Creation)	CWKV	96	Structures	625	1.5
Prospect	District-Wide (SOHA Monitor)	NFWF	96	Plans	11	44.5
Prospect	Timber Support (T,E&S)	NFWF	96	Plans	1	95.6
Applegate	Timber Sale Seeding	CWKV	97	Acres	150	7.0
Applegate	Timber Sale Snag Creation	CWKV	97	Structures	120	4.5
Applegate	Timber Sale Guzzler	CWKV	97	Structures	1	4.5
Applegate	Sensitive Species Surveys (Support)	NFWF	97	Acres	2000	8.0
Applegate	Winter Range Burn	NFWF	97	Acres	50	5.0
Applegate	Wildlife Mitigation Area Rehabilitation	NFWF	97	Acres	5	3.0
Ashland	Wildlife Prescription Survey Various Locations	CWKV	97	Acres	2000	4.6
Ashland	Mark/Tag Wildlife Trees Various Locations	CWKV	97	Structures	6	1.7
Ashland	Road Closures Various Locations	CWKV	97	Structures	5	1.1
Ashland	Guzzlers Various Locations	CWKV	97	Structures	1	3.5
Butte Falls	Wildlife Tree Surveys	CWKV	97	Acres	420	6.3
Butte Falls	Forage Seeding	CWKV	97	Acres	290	20.0
Butte Falls	Road Closures	CWKV	97	Structures	8	6.0
Butte Falls	Elk Telemetry Monitoring	CWKV	97	Acres	400	2.0
Butte Falls	Wildlife Tree Create	CWKV	97	Structures	100	2.5
Butte Falls	Browse Rejuvenation	CWKV	97	Acres	10	2.0
Butte Falls	Spotted Owl Monitoring	CWKV	97	Surveys	3	4.0
Prospect	Branch TS (Wildlife Tree Inventory)	CWKV	97	Acres	167	0.8
Prospect	Bull TS (Snag Creation)	CWKV	97	Structures	49	1.0
Prospect	EP TS (Fence Removal)	CWKV	97	Structures	8	26.5
Prospect	Fos TS (Snag Creation)	CWKV	97	Structures	122	3.0
Prospect	Kanob II (Snag Creation)	CWKV	97	Structures	165	4.0
Prospect	K-Rock TS (Owl Monitor)	CWKV	97	Acres	1000	0.5
Prospect	Little Flat TS (Snag Creation)	CWKV	97	Structures	57	1.4
Prospect	Loop TS (Wildlife Tree Inventory)	CWKV	97	Acres	245	1.2

## WILDLIFE (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Prospect	Nine TS (Wildlife Tree Inventory)	CWKV	97	Acres	260	1.3
Prospect	Obie I TS (Snag Creation)	CWKV	97	Structures	226	5.5
Prospect	Piggy TS (Snag Creation)	CWKV	97	Structures	68	1.7
Prospect	Silver TS (Wildlife Tree Inventory)	CWKV	97	Acres	173	0.9
Prospect	Smoke TS (Wildlife Tree Inventory)	CWKV	97	Acres	183	0.9
Prospect	Shoe II TS (Snag Creation)	CWKV	97	Structures	321	6.5
Prospect	Varmit TS (Snag Creation)	CWKV	97	Structures	194	1.0
Prospect	Whiskey TS (Snag Creation)	CWKV	97	Structures	79	1.9
Prospect	Willow TS (Snag Creation)	CWKV	97	Structures	182	4.5
Prospect	Kettle Rock TS (Snag Creation)	CWKV	97	Structures	429	8.3
Prospect	Coalmine II (Snag Creation)	CWKV	97	Structures	117	2.6
Prospect	Misc. TS (Forage Seeding)	CWKV	97	Acres	30	4.3
Prospect	Misc. TS (Wildlife Tree Inventory)	CWKV	97	Acres	425	2.1
Prospect	Misc. TS (Snag Creation)	CWKV	97	Structures	650	1.6
Prospect	District-Wide (SOHA Monitor)	NFWF	97	Plans	11	44.5
Prospect	Timber Support (T,E&S)	NFWF	97	Plans	1	95.6
Applegate	Timber Sale Seeding	CWKV	98	Acres	200	10.0
Applegate	Timber Sale Snag Creation	CWKV	98	Structures	120	4.5
Applegate	Timber Sale Sensitive Species Monitoring	CWKV	98	Acres	10	2.0
Applegate	Sensitive Species Surveys (Support)	NFWF	98	Acres	2000	8.0
Applegate	Ridgetop Guzzler	NFWF	98	Structures	1	5.0
Ashland	Forage Improvement Various Locations	CWKV	98	Structures	10	.6
Ashland	Forage Improvement Various Locations	NFWF	98	Structures	10	.6
Ashland	Wildlife Prescription Surveys Various Locations	CWKV	98	Acres	2000	4.6
Ashland	Wildlife Tree Creation Various Locations	CWKV	98	Structures	250	4.5
Ashland	Road Closures Various Locations	CWKV	98	Structures	5	1.1
Ashland	Mark/Tag Wildlife Trees Various Locations	CWKV	98	Structures	6	1.7
Ashland	Guzzlers Various Locations	CWKV	98	Structures	1	3.5
Ashland	Guzzlers Various Locations	NFWF	98	Structures	1	3.5
Butte Falls	Elk Telemetry Monitoring	CWKV	98	Acres	400	2.0
Butte Falls	Wildlife Tree Create	CWKV	98	Structures	100	2.5
Butte Falls	Browse Rejuvenation	CWKV	98	Acres	10	2.0
Butte Falls	Spotted Owl Monitoring	CWKV	98	Surveys	3	4.0
Butte Falls	Wildlife Tree Surveys	CWKV	98	Acres	420	6.3
Butte Falls	Forage Seeding	CWKV	98	Acres	290	20.0
Butte Falls	Road Closures	CWKV	98	Structures	8	6.0
Prospect	Ace TS (Wildlife Tree Inventory)	CWKV	98	Acres	65	0.4

## WILDLIFE (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Prospect	Fine TS (Wildlife Tree Inventory)	CWKV	98	Acres	70	0
Prospect	Finger TS (Wildlife Tree Inventory)	CWKV	98	Acres	100	0.5
Prospect	FOS TS (Snag Creation)	CWKV	98	Structures	53	1.3
Prospect	Ham TS (Snag Creation)	CWKV	98	Structures	10	0.2
Prospect	Jaw TS (Snag Creation)	CWKV	98	Structures	200	1.0
Prospect	Larson TS (Snag Creation)	CWKV	98	Structures	22	1.4
Prospect	Loop TS (Snag Creation)	CWKV	98	Structures	90	2.3
Prospect	Mare TS (Snag Creation)	CWKV	98	Structures	64	1.6
Prospect	Nine TS (Snag Creation)	CWKV	98	Structures	150	3.8
Prospect	Sevenlick TS (Wildlife Tree Inventory)	CWKV	98	Acres	150	0.7
Prospect	Shine TS (Snag Creation)	CWKV	98	Structures	172	3.5
Prospect	Silver TS (Snag Creation)	CWKV	98	Structures	100	2.6
Prospect	Smoke TS (Snag Creation)	CWKV	98	Structures	75	1.9
Prospect	Tan TS (Wildlife Tree Inventory)	CWKV	98	Acres	100	0.5
Prospect	Turlock TS (Wildlife Tree Inventory)	CWKV	98	Acres	219	1.2
Prospect	Varmit TS (Snag Creation)	CWKV	98	Structures	163	4.2
Prospect	Misc. TS (Forage Seeding)	CWKV	98	Acres	35	5.2
Propsect	Misc. TS (Wildlife Tree Inventory)	CWKV	98	Acres	575	3.0
Prospect	Misc. TS (Snag Creation)	CWKV	98	Structures	625	16.6
Prospect	District Wide (SOHA Monitor)	NFWF	98	Plans	11	44.5
Prospect	Timber Support (T,E&S)	NFWF	98	Plans	1	95.6
Applegate	Timber Sale Seeding	CWKV	99	Acres	150	8.0
Applegate	Timber Sale Snag Creation	CWKV	99	Structures	120	4.5
Applegate	Timber Sale Sensitive Species Monitoring	CWKV	99	Acres	10	2.0
Applegate	Winter Range Burn	NFWF	99	Acres	50	5.0
Applegate	Sensitive Species Habitat Improvement	CWKV	99	Structures	5	1.4
Ashland	Wildlife Prescription Surveys Various Locations	CWKV	99	Acres	2000	4.6
Ashland	Mark/Tag Wildlife Trees Various Locations	CWKV	99	Structures	6	1.7
Ashland	Guzzlers Various Locations	CWKV	99	Structures	1	3.5
Ashland	Road Closures Various Locations	CWKV	99	Structures	5	1.1
Ashland	Guzzlers Various Locations	NFWF	99	Structures	1	3.5
Ashland	Wildlife Tree Creation Various Locations	CWKV	99	Structures	250	4.5
Ashland	Forage Improvement Various Locations	CWKV	99	Acres	10	.6
Ashland	Forage Improvement Various Locations	NFWF	99	Acres	10	.6
Butte Falls	Wildlife Tree Surveys	CWKV	99	Acres	420	6.3
Butte Falls	Forage Seeding	CWKV	99	Acres	290	20.0
Butte Falls	Road Closures	CWKV	99	Structures	8	6.0

**WILDLIFE (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Butte Falls	Elk Telemetry Monitoring	CWKV	99	Acres	400	2.0
Butte Falls	Wildlife Tree Create	CWK	99	Structures	100	2.5
Butte Falls	Browse Rejuvenation	CWK	99	Acres	10	2.0
Butte Falls	Spotted Owl Monitoring	CWKV	99	Surveys	3	4.0
Prospect	Misc. TS (Forage Seeding)	CWKV	99	Acres	65	10.0
Prospect	Misc. TS (Wildlife Tree Inventory)	CWKV	99	Acres	600	3.3
Prospect	Misc. TS (Snag Creation)	CWKV	99	Structures	1800	47.7
Prospect	District Wide (SOHA Monitor)	NFWF	99	Plans	11	44.5
Prospect	Timber Support (T,E&S)	NFWF	99	Plans	1	95.6

10-YEAR ACTIVITY SCHEDULES

FISH HABITAT

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Applegate	Fish Pond Sale Fish Hab Imp	CWKV	90	Structures	5	6.3
Applegate	Stream Habitat Inventory Beaver Creek Fish Hab Imp	NFWF CWKV	90 90	Miles Structures	25 33	12.0 25
Applegate	Willow Planting Reservoir Fish Hab Imp (CCS)	NFWF RMTR NFWF	90 90	Acres Structures	2 30	2 6
Ashland	Fish Enhancement South Fork Little Butte Creek Stream Habitat Inventory	NFWF NFWF	90 90	Structures Miles	10 25	6.5 12.0
Butte Falls	Four Bit Creek Fish Weirs	NFWF	90	Structures	3	3.5
Butte Falls	Ash Creek Willow Plant Stream Inventory	NFWF NFWF	90 90	Acres Miles	3.5 10	1.3 5
Prospect	Abbott Creek (Develop Pools)	CWKV	90	Structures	5	7.0
Prospect	Abbott Creek (Willow Planting)	CWKV	90	Acres	3.5	2.0
Prospect	Elk Cr. Red Blanket Creek Bitter Lick CR (Stream Inv) Stream Inventory	NFWF NFWF	90	Miles	25	13.0
Applegate	Stream Habitat Inventory Reservoir Fish Hab Imp (CCS) Willow Planting	NFWF RMTR NFWF	91	Miles Structures Acres	25 40 4	12 20 2.0
Applegate	Palmer Creek Beaver Creek Passage and Pools	NFWF NFWF	91	Structures	30	18
Ashland	Fish Enhancement Stream Surv Brown Mountain T.S. S. Fork Little Butte Creek	NFWF CWKV NFWF	91 91 91	Miles Structures Structures	21 30 40	12 21.0 20.0
Butte Falls	Imnaha Creek Log Jam Removal Stream Survey Inventory	NFWF NFWF	91 91	Acres Miles	6 10	4.0 5
Butte Falls	Imnaha Creek Create Pools Other Streams	NFWF CWKV	91	Structures Structures	2 20	8.0 12
Prospect	Abbott Creek (Stream Hab Inv) Other Streams	NFWF CWKV	91	Miles Structures	2.5 20	1.2 15.0
Prospect	Abbott Creek (Develop Pools)	NFWF	91	Structures	25	21.0
Prospect	Abbott Creek (Willow Planting)	NFWF	91	Acres	5	2.9
Prospect	Mill Creek (Develop Access)	NFWF	91	Acres	2	2.0
Prospect	Foster Creek (Stream Hab Inv)	NFWF	91	Miles	6	2.8
Prospect	Wiley Creek (Stream Hab Inv)	NFWF	91	Miles	1	0.5
Prospect	Log Creek (Stream Hab Inv)	NFWF	91	Miles	2	0.9
Prospect	Lost Creek (Stream Hab Inv)	NFWF	91	Miles	1	0.5
Prospect	Meadow Creek (Stream Hab Inv)	NFWF	91	Miles	2	0.9
Prospect	Rock Creek (Stream Hab Inv)	NFWF	91	Miles	1	0.5
Prospect	Alkali Creek (Stream Hab Inv)	NFWF	91	Miles	2	0.9
Prospect	Muir Creek (Stream Hab Inv)	NFWF	91	Miles	6	2.8
Prospect	Ice Creek (Stream Hab Inv)	NFWF	91	Miles	1.5	0.7
Applegate	Stream Surveys, Palmer Creek Pools & Spawning Habitat	NFWF NFWF	92 92	Miles Structures	15 30	18.0 20

## FISH HABITAT (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Applegate	Beaver Creek Reservoir Willow Planting Reservoir Structures	NFWF NFWF	92	Acres Structures	5 30	2.5 18
Ashland	Stream Surveys Brown Mountain T.S. Enhancement S. Fork Little Butte Creek	NFWF CWKV NFWF	92 92 92	Miles Structures NFWF	10 25 30	5 20 20.0
Butte Falls	Stream Surveys S.F. Four Bit Creek Create Pools Other Streams	NFWF NFWF CWKV	92 92 92	Miles Structures Structures	10 10 15	6.0 7 10
Butte Falls	Four Bit Creek Culvert Passage	NFWF	92	Acres	10	7
Prospect	Stream Surveys Abbott Creek (Develop Pools) Other Streams	NFWF NFWF NFWF	92 92 92	Miles Structures Structures	20 20 20	12.0 15.0 20.0
Prospect	Abbott Creek (Willow Planting) Other Streams	NFWF CWKV	92	Acres Structures	2 20	1.2 14
Prospect	Abbott Creek (Stream Hab Inv)	NFWF	92	Miles	2	0.9
Prospect	Ez TS (Stream Hab Inv)	CWKV	92	Miles	4	1.9
Prospect	Red Blanket CK (Stream Hab Inv)	NFWF	92	Miles	2	0.9
Prospect	Foster Creek (Develop Pools)	NFWF	92	Structures	20	22.0
Prospect	Foster Creek (Willow Planting)	NFWF	92	Acres	5	3.0
Prospect	Hershberger Creek (Stream Hab Inv)	NFWF	92	Miles	4	1.9
Prospect	Rabbit Ear Creek (Stream Hab Inv)	NFWF	92	Miles	2	0.9
Prospect	Prairie Creek (Stream Hab Inv)	NFWF	92	Miles	2.5	1.2
Prospect	Browns Creek (Stream Hab Inv)	NFWF	92	Miles	3	1.4
Prospect	Flat Creek (Stream Hab Inv)	NFWF	92	Miles	7.5	3.5
Prospect	Travail Creek (Stream Hab Inv)	NFWF	92	Miles	3	1.4
Prospect	Sherwood Creek (Stream Hab Inv)	NFWF	92	Miles	5.5	2.6
Prospect	W.Fork Sherwood Creek (Stream Rehab)	NFWF	92	Miles	2	0.9
Prospect	Cascade Creek (Stream Hab Inv)	NFWF	92	Miles	3.5	1.6
Applegate	Stream Surveys Reservoir Fish Hab Imp (CCS) Willow Planting	NFWF RMTR NFWF	93 93 93	Miles Structures Acres	15 30 5	9.0 18 5
Applegate	Other Streams, Hab Imp Beaver Cr. Fish Hab Imp Other Streams	NFWF NFWF CWKV	93 93 93	Structures Structures Structures	20 10 20	15 8 15
Ashland	Fish Enhancement South Fork Little Butte Creek Little Applegate	NFWF CWKV NFWF	93 93 93	Structures Structures	25 20	20 18
Ashland	Fish Enhancement South Fork Little Butte Creek Stream Surveys	NFWF NFWF	93 93	Structures Miles	25 10	20 7
Butte Falls	Other Streams, Hab Imp Four Bit Creek, Hab Imp Stream Surveys	CWKV NFWF NFWF	93 93 93	Structures Acres Miles	10 15 5	8 12 3.0
Butte Falls	Frey Creek Create Pools	NFWF	93	Structures	15	10



10-YEAR ACTIVITY SCHEDULES

FISH HABITAT (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Prospect	Hershberger Creek (Develop Pools) Other Streams	NFWF	93	Structures	10	7
		CWKV	93	Structures	10	7
Prospect	Tan TS (Stream Hab Inv)	CWKV	93	Miles	2	0.9
Prospect	National Creek (Stream Hab Inv)	NFWF	93	Miles	7	3.3
Prospect	S. Fork National Creek (Stream Inv)	NFWF	93	Miles	2.5	1.2
Prospect	Woodruff Creek (Stream Hab Inv)	NFWF	93	Miles	6	2.8
Prospect	Flat Creek (Develop Pools)	NFWF	93	Structures	35	49.2
Prospect	Falls Creek (Stream Hab Inv)	NFWF	93	Miles	2	0.9
Prospect	Hurryon Creek (Stream Hab Inv)	NFWF	93	Miles	4	1.9
Prospect	Beartree Creek (Stream Hab Inv)	NFWF	93	Miles	2	0.9
Prospect	Hamaker Creek (Stream Hab Inv)	NFWF	93	Miles	2	0.9
Prospect	Minnehaha Creek (Stream Hab Inv)	CWKV	93	Miles	3	1.4
Applegate	Stream Surveys Elliot Creek Fish Hab Imp	NFWF	94	Miles	15	10
		NFWF CWKV	94	Structures	25	18
Applegate	Palmer/Beaver Creeks, Hab Imp Reservoir Fish Hab Imp (CCS)	NFWF	94	Structures	20	15
		NFWF	94	Structures	40	30
Ashland	Fish Enhancement South Fork Little Butte Creek Stream Survey	NFWF	94	Structures	20	15
		CWKV	94	Structures	20	15
		NFWF	94	Structures	10	8.0
Butte Falls	Other Streams, Hab Imp Big Ben Creek Create Pools Stream Surveys	CWKV	94	Structures	10	8
		NFWF	94	Structures	10	8
		NFWF	94	Miles	5	4.0
Prospect	Flat Creek (Develop Pools) Abbott Creek	NFWF	94	Structures	25	21
		NFWF	94	Structures	30	28
Prospect	Flat Creek (Willow Planting)	NFWF	94	Acres	5	2.9
Prospect	Other Streams Woodruff Creek (Develop Pools)	NFWF	94	Structures	20	15
		NFWF	94	Structures	10	8
Prospect	Woodruff Creek (Willow Planting)	NFWF	94	Acres	5	2.9
Prospect	Mill Creek (Stream Hab Inv)	NFWF	94	Miles	9	4.2
Prospect	Schoolmarm Creek (Stream Hab Inv)	NFWF	94	Miles	1	0.5
Prospect	Sevenlicks TS (Stream Hab Inv)	CWKV	94	Miles	5	2.3
Prospect	Deep Creek (Stream Hab Inv)	NFWF	94	Miles	1	0.5
Prospect	Kiter Creek (Stream Hab Inv)	NFWF	94	Miles	4	1.9
Prospect	Needle Creek (Stream Hab Inv)	NFWF	94	Miles	4	1.9
Prospect	Larson Creek (Stream Hab Inv)	NFWF	94	Miles	2	0.9
Prospect	Graham Creek (Stream Hab Inv)	NFWF	94	Miles	1	0.9
Prospect	Lund Creek (Stream Hab Inv)	NFWF	94	Miles	1	0.5
Prospect	Barr Creek (Stream Hab Inv)	NFWF	94	Miles	7	3.3
Applegate	Stream Surveys Palmer Creek Fish Hab Imp Applegate Lake	NFWF	95	Miles	15	12
		NFWF	95	Structures	40	38
		CWKV	95	Structures	20	18

## FISH HABITAT (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Ashland	Fish Enhancement, Stream Surveys South Fork Little Butte Creek Fish Enhancement Neil Creek/Little Applegate	NFWF	95	Miles	10	8
		CWKV	95	Structures	20	12
		NFWF	95	Structures	20	18
Butte Falls	Stream Surveys Log Jam Removal Habitat Improvement	NFWF	95	Structures	8	7
		NFWF	95	Acres	15	10
		CWKV	95	Structures	15	12
Butte Falls	Create Pools	NFWF	95	Structures	3	4.0
Prospect	W. Branch Elk Creek (Stream Inv)	CWKV	95	Miles	1	0.5
Prospect	Morine Creek (Stream Hab Inv)	CWKV	95	Miles	1	0.5
Prospect	Spot Creek (Stream Hab Inv)	CWKV	95	Miles	1	0.5
Prospect	Pelt Creek (Stream Hab Inv)	NFWF	95	Miles	4	1.9
Prospect	Elkhorn Creek (Stream Hab Inv)	NFWF	95	Miles	3.5	1.6
Prospect	Coalmine Creek (Stream Hab Inv)	NFWF	95	Miles	5	2.3
Prospect	Sugarpine Creek (Stream Hab Inv)	NFWF	95	Miles	4	1.6
Prospect	Mill Creek (Develop Pools)	NFWF	95	Structures	20	28.1
Prospect	Barr Creek (Develop Pools)	NFWF	95	Structures	20	28.1
Applegate	Stream Surveys Applegate R. Res. Fish Hab Imp Willow Planting	NFWF	96	Miles	10	8
		NFWF	96	Structures	30	30
		NFWF	96	Acres	10	10
Applegate	Elliott Creek Fish Hab Imp Other Streams	NFWF	94	Structures	20	20
		CWKV	96	Structures	20	20
Ashland	Fish Enhancement, Stream Surv North Fork Little Butte Creek N. Fork Neil Creek, Little App	NFWF	96	Miles	15	12
		CWKV	96	Structures	20	20
		NFWF	96	Structures	20	20
Butte Falls	Stream Surveys Create Pools Habitat Improvement	NFWF	96	Miles	10	8
		NFWF	96	Structures	15	15
		CWKV	96	Structures	15	12
Prospect	Tyson Gulch (Stream Hab Inv) Other Streams & Habitat Imp	NFWF	96	Miles	1.5	0.7
		NFWF	96	Structures	30	30
Prospect	Other Streams & Habitat Imp Kettle Creek (Stream Hab Inv)	CWKV	96	Structures	20	15
		NFWF	96	Miles	2.5	1.2
Prospect	Swanson Creek (Stream Hab Inv)	NFWF	96	Miles	3	1.4
Prospect	Elk Creek (Stream Hab Inv)	NFWF	96	Miles	6	2.8
Applegate	Stream Survey Beaver Creek Blast Pools Star Gulch & Other Streams	NFWF	97	Miles	15	12
		NFWF	97	Structures	45	47
		CWKV	97	Structures	25	25
Ashland	Stream Surveys Fish Enhancement North Fork Little Butte Creek	NFWF	97	Miles	15	10
		CWKV	97	Structures	20	20
		NFWF	97	Structures	10	11
Butte Falls	Stream Surveys Create Pools Other Streams Hab Imp	NFWF	97	Miles	10	8
		NFWF	97	Structures	20	22
		CWKV	97	Structures	10	10
Prospect	Top Creek (Stream Hab Inv)	NFWF	97	Miles	20	17
Prospect	Other Streams Hab Imp Hop CK (Stream Hab Inv) Other Stream Hab Imp	NFWF	97	Structures	20	22
		NFWF	97	Structures	3	1.4
		CWKV	97	Structures	20	20
Prospect	Riparian Rehabilitation Jim Creek (Stream Hab Inv)	NFWF	97	Acres	5	3.5
		NFWF	97	Miles	2.5	1.2

## FISH HABITAT (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Prospect	Littlemite Creek (Stream Hab Inv)	NFWF	97	Miles	3.5	1.6
Prospect	Sunshine Creek (Stream Hab Inv)	NFWF	97	Miles	3.5	1.6
Prospect	Red Fir Creek (Stream Hab Inv)	NFWF	97	Miles	2	0.9
Prospect	Little Sunshine Creek (Stream Inv)	NFWF	97	Miles	3	1.4
Prospect	McCall Creek (Stream Hab Inv)	NFWF	97	Miles	3	1.4
Prospect	De Witt Creek (Stream Hab Inv)	NFWF	97	Miles	1	0.5
Applegate	Stream Surveys Squaw Creek Fish Hab Imp	NFWF	98	Miles	15	13
		NFWF	98	Structures	30	30
		CWKV	98	Structures	10	13
Applegate	Reservoir Fish Hab Imp (CCS) Willow Planting	NFWF	98	Structures	30	3.5
		NFWF	98	Acres	5	5
Ashland	Fish Enhancement Other Streams Little Applegate River Stream Surveys	NFWF	98	Structures	20	25
		CWKV	98	Structures	20	20
		NFWF	98	Miles	15	12
Butte Falls	Stream Surveys Create Pools Other Streams Hab Imp	NFWF	98	Miles	10	8
		NFWF	98	Structures	15	17
		CWKV	98	Structures	15	17
Prospect	Copeland Creek (Stream Hab Inv)	NFWF	98	Miles	8	3.8
Prospect	Other Streams Hab Imp Crater Creek (Stream Hab Inv) Other Stream Hab Imp	NFWF	98	Structures	25	28
		NFWF	98	Miles	5	
		CWKV	98	Structures	20	20
Prospect	Bert Creek (Stream Hab Inv)	NFWF	98	Miles	7	3.3
Prospect	Wizard Creek (Stream Hab Inv)	NFWF	98	Miles	3	1.4
Prospect	Bill Creek (Stream Hab Inv)	NFWF	98	Miles	3	1.4
Prospect	Ginkgo Creek (Stream Hab Inv)	NFWF	98	Miles	15	7.0
Applegate	Stream Surveys Palmer Creek Fish Hab Imp Other Streams	NFWF	99	Miles	10	8
		NFWF	99	Structures	35	35
		CWKV	99	Structures	30	30
Ashland	Fish Enhancement Little Applegate River Stream Surveys	NFWF	99	Structures	20	25
		CWKV	99	Structures	20	20
		NFWF	99	Miles	20	18
Butte Falls	Stream Surveys Create Pools Other Streams Hab Imp	NFWF	99	Miles	10	8
		NFWF	99	Structures	25	25
		CWKV	99	Structures	30	25
Prospect	Other Streams Hab Imp Deer Creek (Stream Hab Inv) Other Streams Hab Imp	NFWF	99	Structures	30	35
		NFWF	99	Miles	4.5	2.1
		CWKV	99	Structures	20	25
Prospect	Whiskey Creek (Stream Hab Inv)	NFWF	99	Miles	7	3.3
Prospect	Rock Creek (Stream Hab Inv)	NFWF	99	Miles	6	2.8
Prospect	Crawford Creek (Stream Hab Inv)	NFWF	99	Miles	6	2.8
Prospect	Castle Creek (Stream Hab Inv)	NFWF	99	Miles	7	3.3
Prospect	Union Creek (Stream Hab Inv)	NFWF	99	Miles	13	6.1
Prospect	Bybee Creek (Stream Hab Inv)	NFWF	99	Miles	9	4.2

## FUELS TREATMENT

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Forest-Wide	Activity Fuels	BDBD CWKV NFNF	90	Acres	5600	1,573.6
Forest-Wide	Wilderness Fuels	NFAF NFRN	90	Plan/Acre	0/0	00.0
Forest-Wide	Natural Fuels	NFAF	90	Acres	90	26.0
Forest-Wide	Air Resource Management	NFNF CWKV BDBD NFSW	90			12.0
Forest-Wide	Activity Fuels	BDBD CWKV NFNF	91	Acres	5200	1,575.0
Forest-Wide	Wilderness Fuels	NFAF NFRN	91	Plan/Acre	1/0	15.0
Forest-Wide	Natural Fuels	NFAF	91	Acres	200	57.6
Forest-Wide	Air Resource Management	NFNF CWKV BDBD NFSW	91			20.0
Forest-Wide	Activity Fuels	BDBD CWKV NFNF	92	Acres	5200	1,575.0
Forest-Wide	Wilderness Fuels	NFAF NFRN	92	Plan/Acre	1/0	15.0
Forest-Wide	Natural Fuels	NFAF	92	Acres	200	57.6
Forest-Wide	Air Resource Management	NFNF CWKV BDBD NFSW	92			72.0
Forest-Wide	Activity Fuels	BDBD CWKV NFNF	93	Acres	5200	1,575.0
Forest-Wide	Wilderness Fuels	NFAF NFRN	93	Plan/Acre	1/0	15.0
Forest-Wide	Natural Fuels	NFAF	93	Acres	200	57.6
Forest-Wide	Air Resource Management	NFNF CWKV BDBD NFSW	93			59.0
Forest-Wide	Activity Fuels	BDBD CWKV NFNF	94	Acres	5200	1,575.0
Forest-Wide	Wilderness Fuels	NFAF NFRN	94	Plan/Acre	1/0	15.0
Forest-Wide	Natural Fuels	NFAF	94	Acres	200	57.6
Forest-Wide	Air Resource Management	NFNF CWKV BDBD NFSW	94			59.0
Forest-Wide	Activity Fuels	BDBD CWKV NFNF	95	Acres	5200	1,575.0

**FUELS TREATMENT (continued)**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Forest-Wide	Wilderness Fuels	NFAF NFRN	95	Plan/Acre	1/0	15.0
Forest-Wide	Natural Fuels	NFAF	95	Acres	200	57.6
Forest-Wide	Air Resource Management	NFNF CWKV BDBD NFSW	95			49.0
Forest-Wide	Activity Fuels	BDBD CWKV NFNF	96	Acres	5200	1,575.0
Forest-Wide	Wilderness Fuels	NFAF NFRN	96	Plan/Acre	1/500	40.0
Forest-Wide	Natural Fuels	NFAF	96	Acres	200	57.6
Forest-Wide	Air Resource Management	NFNF CWKV BDBD NFSW	96			49.0
Forest-Wide	Activity Fuels	BDBD CWKV NFNF	97	Acres	4500	1,363.5
Forest-Wide	Wilderness Fuels	NFAF NFRN	97	Plan/Acre	1/500	40.0
Forest-Wide	Natural Fuels	NFAF	97	Acres	200	57.6
Forest-Wide	Air Resource Management	NFNF CWKV BDBD NFSW	97			49.0
Forest-Wide	Activity Fuels	BDBD CWKV NFNF	98	Acres	4500	1,363.5
Forest-Wide	Wilderness Fuels	NFAF NFRN	98	Plan/Acre	1/500	40.0
Forest-Wide	Natural Fuels	NFAF	98	Acres	200	57.6
Forest-Wide	Air Resource Management	NFNF CWKV BDBD NFSW	98			49.0
Forest-Wide	Activity Fuels	BDBD CWKV NFNF	99	Acres	4500	1,363.5
Forest-Wide	Wilderness Fuels	NFAF NFRN	99	Plan/Acre	1/500	40.0
Forest-Wide	Natural Fuels	NFAF	99	Acres	200	57.6
Forest-Wide	Air Resource Management	NFNF CWKV BDBD NFSW	99			49.0

## DEVELOPED RECREATION

Ranger District	Project Name	Fund Code	FY	Unit 1/ Measure	Unit	M \$
Applegate	McKee Picnic Site Feasibility Study	CNRF	91	Report	1	5.0
Applegate	Beaver-Sulphur Campground Feasibility Report	CNRF	91	Report	1	2.0
Ashland	Fish Lake Recreation Complex Feasibility Study (Including Sastise Potential)	CNRF	91	Report	1	15.0
Butte Falls	Imnaha Interpretive Kiosk Design	CNRF	91	-	-	5.0
Butte Falls	Imnaha Campground Vegetative Management Plan	NFRN	91	Plan	1	2.0
Prospect	Mammoth Pines Interpretive Site Redesign and Preconstruc.	CNRF	91	-	-	5.0
Applegate	McKee Picnic Site Design	CNRF	92	-	-	8.0
Ashland	Fish Lake Recreation Complex Design	CNRF	92	-	-	47.0
Butte Falls	Nichols Creek Picnic Site Feasibility Report	CNRF	92	Report	1	2.0
Butte Falls	Imnaha Interpretive Kiosk Construction	CNRF	92	-	-	12.0
Prospect	Union Creek Recreation Complex Feasibility Report	CNRF	92	Report	1	20.0
Prospect	Mammoth Pines Interpretive Site Reconstruction	CNRF	92	-	1	15.0
Applegate	Beaver-Sulphur Campground Preconstruc.	CNRF	93	-	-	5.0
Applegate	McKee Picnic Site Construction	CNRF	93	PAOT	125	100.0
Applegate	Beaver-Sulphur Campground Reconstruction	CNRF	93	PAOT	50	75.0
Applegate	Hartish Park Feasibility Report	CNRF	93	Report	1	15.0
Ashland	Fish Lake Campground Reconstruction/Possible Sastise Campground Construction	CNRF	93	PAOT	75	610.0
Ashland	North Fork Campground Feasibility Report	CNRF	93	Report	1	3.0
Butte Falls	Nichols Creek Picnic Site Preconstruc.	CNRF	93	-	-	5.0
Butte Falls	Four Bit/South Fork Campground Vegetative Management Plans	NFRN	93	Plan	2	3.0
Prospect	Union Creek Campground, Picnic Ground and Visitor Center Survey and Design	CNRF	93	-	-	40.0
Applegate	Flumet Flat Campground/Jackson Picnic Feasibility Report	CNRF	94	Report	1	5.0
Applegate	Hartish Park Survey and Design	CNRF	94	-	-	35.0
Ashland	North Fork Campground Survey and Design	CNRF	94	-	-	15.0
Ashland	Daley Creek Campground Feasibility Report	CNRF	94	Report	1	3.0
Butte Falls	Nichols Creek Picnic Site Reconstruction/Conversion	CNRF	94	PAOT	35	45.0
Prospect	Rabbit Ears Viewpoint Preconstruc.	CNRF	94	PAOT	30	10.0
Prospect	Union Creek CG/Picnic Ground and Visitor Information Site Reconstruction	CNRF	94	PAOT	125	480.0
Applegate	French Gulch Campground Feasibility Report	CNRF	95	Report	1	5.0
Applegate	Flumet Flat Campground/Jackson Picnic Survey and Design	CNRF	95	Report	1	15.0
Applegate	Hartish Park Construction	CNRF	95	PAOT	200	225.0
Ashland	North Fork Campground Reconstruction	CNRF	95	PAOT	35	125.0

**DEVELOPED RECREATION (continued)**

Ranger District	Project Name	Fund Code	FY	Unit 1/ Measure	Unit	M \$
Ashland	Daley Creek Campground Survey and Design	CNRF	95	-	-	15.0
Butte Falls	Willow Prairie Horse Camp Preconstruc. Vegetation Plan	CNRF NFRN	95	-	-	7.0
Prospect	Rabbit Ears Viewpoint Construction	CNRF	95	PAOT	30	10.0
Prospect	Natural Bridge Toilet Replacement	CNRF	95	-	-	30.0
Applegate	Flumet Flat CG/Jackson Picnic Reconstruction	CNRF	96	PAOT	135	65.0
Applegate	French Gulch Campground Survey and Design	CNRF	96	-	-	18.0
Applegate	Seattle Bar Picnic Site Feasibility Report	CNRF	96	Report	1	5.0
Ashland	Daley Creek Campground Reconstruction	CNRF	96	PAOT	25	95.0
Butte Falls	Willow Prairie Horse Camp Reconstruction	CNRF	96	PAOT	45	40.0
Prospect	Woodruff Bridge PG/CG Conversion Feasibility	CNRF	96	PAOT	30	1.0
Applegate	Squaw Lake Campground Feasibility Report	CNRF	97	Report	1	10.0
Applegate	French Gulch Campground Reconstruction	CNRF	97	PAOT	100	65.0
Applegate	Seattle Bar Picnic Site Survey and Design	CNRF	97	-	-	15.0
Butte Falls	Fourbit Ford Campground Fence and Cattle-guard	CNRF	97	-	-	6.0
Prospect	Woodruff Bridge PG/CG Conversion Preconstruc.	CNRF	97	PAOT	30	5.0
Prospect	Toilet Replacement	CNRF	97	Units	3	90.0
Applegate	Squaw Lake Campground Survey and Design	CNRF	98	-	-	25.0
Applegate	Seattle Bar Picnic Site Reconstruction	CNRF	98	PAOT	105	300.0
Butte Falls	Big Ben/South Fork Recreation Complex Feasibility Report	CNRF	98	Report	-	3.0
Prospect	Toilet Replacement	CNRF	98	Units	3	90.0
Prospect	Woodruff Bridge PG/CG Conversion Construction	CNRF	98	PAOT	30	50.0
Applegate	Squaw Lake Campground Reconstruction	CNRF	99	PAOT	145	25.0
Butte Falls	Big Ben/South Fork Recreation Complex Preconstruc.	CNRF	99	-	-	8.0

1/ PAOT=Person At One Time

## TRAILS/TRAILHEADS/SNOWPARKS

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Ashland	Fish Lake Bike Trail Recon.	CNTR	90	-	-	1.0
Butte Falls	Halifax Trail Preconstruc.	CNTR	90	-	-	4.0
Butte Falls	South Fork Rogue Trail Preconstruc.	CNTR	90	-	-	6.0
Prospect	Bybee Bridge Construction	CNTR	90	-	-	80.0
Applegate	Middle Fork Trail Bridge Reconstruction	CNTR	91	-	-	10.0
Ashland	Wagner Butte Trail and Trailhead Recon.	CNTR	91	-	-	1.0
Ashland	Fish Lake Trail Construction	CNTR	91	Miles	5.0	60.0
Butte Falls	Halifax Trail Construction	CNTR	91	Miles	3.2	17.0
Butte Falls	South Fork Rogue Trail Construction	CNTR	91	Miles	7.0	70.0
Butte Falls	South Rye Snowpark and Trail Preconstruc.	CNTR	91	-	-	14.0
Prospect	Farewell Bend Access Trail	CNTR	91	Miles	1.0	5.0
Prospect	Abbott Creek Falls Trail Recon. and Preconstruc.	CNTR	91	-	-	4.0
Applegate	Seattle Bar Trail Recon.	CNTR	92	-	-	3.0
Ashland	Fish Lake Bike Trail Preconstruc.	CNTR	92	-	-	15.0
Ashland	Wagner Butte Trail and Trailhead Preconstruc.	CNTR	92	-	-	13.0
Ashland	South Fork Little Butte Creek Trail Recon.	CNTR	92	-	-	3.0
Prospect	Hamaker SnoPark Construction	CNTR	92	-	-	25.0
Prospect	Abbott Creek Falls Trail Construction	CNTR	92	Miles	1.0	12.0
Applegate	Seattle Bar Trail Survey and Design	CNTR	93	-	-	13.0
Applegate	Cook and Green Trail and Trailhead Recon.	CNTR	93	-	-	2.0
Ashland	Wagner Butte Trail and Trailhead Construction	CNTR	93	Miles	7.8	117.0
Ashland	Fish Lake Bike Trail Construction	CNTR	93	Miles	1.7	211.0
Ashland	South Fork Little Butte Creek Trail Preconstruc.	CNTR	93	-	-	15.0
Ashland	Toothpick/Ham Tie Trail Preconstruc.	CNTR	93	-	-	4.0
Butte Falls	Willow Prairie Horse/Cross-Country Ski/ Snowmobile Trail Recon.	CNTR	93	-	-	2.0
Butte Falls	South Rye Snowpark and Trail Construction	CNTR	93	Miles	10.0	31.0
Butte Falls	Big Ben Trail Recon.	CNTR	93	-	-	2.0
Prospect	Hamaker Bridge Construction	CNTR	93	-	-	50.0
Applegate	Seattle Bar Trail Construction	CNTR	94	Miles	4	50.0
Applegate	Cook and Green Trail and Trailhead Preconstruc.	CNTR	94	-	-	6.0
Ashland	Monogram Lake Trail Recon.	CNTR	94	-	-	2.0
Ashland	South Fork Little Butte Creek Trail Construction	CNTR	94	Miles	7.0	70.0
Ashland	Toothpick/Ham Tie Trail Construction	CNTR	94	Miles	4.0	30.0
Butte Falls	Willow Prairie Horse/Cross-Country Ski/ Snowmobile Trail Preconstruc.	CNTR	94	-	-	7.0
Butte Falls	Big Ben Trail Preconstruc.	CNTR	94	-	-	5.0
Prospect	Meadow Creek Trail Recon.	CNTR	94	-	-	2.0



## TRAILS/TRAILHEADS/SNOWPARKS (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Applegate	Cook and Green Trail and Trailhead Construction	CNTR	95	Miles	1.3	40.0
Applegate	Rockspine Trail Recon.	CNTR	95	-	-	2.0
Ashland	Monogram Lake Trail Preconstruc.	CNTR	95	-	-	4.0
Ashland	Lollipop Nordic Trail Additional Preconstruc.	CNTR	95	-	-	3.0
Ashland	Crest Loop/Grouse Gap Nordic Trail Preconstruc.	CNTR	95	-	-	3.0
Ashland	Brown Mountain Trail and Trailhead Recon.	CNTR	95	-	-	3.0
Butte Falls	Big Ben Trail Construction	CNTR	95	Miles	1.5	27.0
Butte Falls	Willow Prairie Horse/Cross-Country Ski/Snowmobile Trail Construction	CNTR	95	Miles	20.0	60.0
Prospect	Meadow Creek Trail Preconstruc.	CNTR	95	-	-	3.0
Applegate	Rockspine Trail Preconstruc.	CNTR	96	-	-	4.0
Ashland	Monogram Lake Trail Construction	CNTR	96	Miles	3.2	51.0
Ashland	Lollipop Nordic Trail Construction	CNTR	96	Miles	2.0	10.0
Ashland	Crest Loop/Grouse Gap Nordic Trail Construction	CNTR	96	Miles	3.5	15.0
Ashland	Brown Mountain Trail and Trailhead Preconstruc.	CNTR	96	-	-	9.0
Ashland	Grizzly Canyon Trail and Trailhead Recon.	CNTR	96	-	-	3.0
Butte Falls	Whiskey Springs Interpretive Trail Preconstruc.	CNTR	96	-	-	3.0
Butte Falls	Twin Ponds Trailhead Recon.	CNTR	96	-	-	2.0
Prospect	Meadow Creek Trail Construction	CNTR	96	Miles	2.2	22.0
Applegate	Rockspine Trail Construction	CNTR	97	Miles	1.5	26.0
Ashland	Brown Mountain Trail and Trailhead Construction	CNTR	97	Miles	9.0	111.0
Ashland	Grizzly Canyon Trail and Trailhead Preconstruc.	CNTR	97	-	-	6.0
Ashland	Beaver Dam Nature Trail Preconstruc.	CNTR	97	-	-	3.0
Ashland	North Fork Trail Recon.	CNTR	97	-	-	2.0
Ashland	Freezeout Snowmobile Trailhead Preconstruc.	CNTR	97	-	-	3.0
Butte Falls	Whiskey Springs Interpretive Trail Construction	CNTR	97	Miles	1.0	10.0
Butte Falls	Twin Ponds Trailhead Preconstruc.	CNTR	97	-	-	3.0
Prospect	Golden Stairs Trail Recon.	CNTR	97	-	-	2.0
Ashland	Grizzly Canyon Trail and Trailhead Construction	CNTR	98	Miles	3.6	55.0
Ashland	Beaver Dam Nature Trail Construction	CNTR	98	Miles	1.0	20.0
Ashland	North Fork Trail Preconstruc.	CNTR	98	Miles	1.0	20.0
Ashland	Freezeout Snowmobile Trailhead Construction	CNTR	98	-	-	30.0
Butte Falls	Twin Ponds Trailhead Construction	CNTR	98	-	-	11.0
Prospect	Golden Stairs Trail Preconstruc.	CNTR	98	-	-	4.0
Ashland	North Fork Trail Construction	CNTR	99	Miles	1.5	128.0
Prospect	Golden Stairs Trail Construction	CNTR	99	Miles	3.0	26.0

**SPECIAL INTEREST AREA/DISPERSED AREA PLANS**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Applegate, Ashland	Siskiyou Crest Plan	NFRN	91	Plan	1	20.0
Applegate	District Dispersed Site Inventory and Condition Survey	NFRN	91	Report	1	5.0
Butte Falls	Skeeter Swamp Plan	NFRN	93	Plan	1	10.0
Prospect	Rabbit Ears Plan	NFRN	95	Plan	1	10.0
Ashland	Grizzly Canyon	NFRN	97	Plan	1	10.0
Prospect	Union Creek	NFRN	99	Plan	1	20.0

**SCENIC CORRIDOR PLANS**

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Ashland, Butte Falls	Highway 140	NFRN	90	Plan	1	15.0
Prospect	Highway 62/230	NFRN	92	Plan	1	20.0
Applegate	Applegate Lake/Road #10	NFRN	94	Plan	1	20.0
Butte Falls, Ashland	Road 37/34/30	NFRN	97	Plan	1	20.0
Ashland	Dead Indian Road	NFRN	98	Plan	1	20.0

10-YEAR ACTIVITY SCHEDULES

CULTURAL RESOURCES

Ranger District	Project Name	Fund Code	FY	Unit 1/ Measure	Unit	M \$
All	C.R. Reconnaissance of Project Areas	NFCR	99	Acres	15000	60 2/
All	Archaeological Testing of Prehistoric Sites	NFRN	91	Sites	5	20
Butte Falls, Prospect	C.R. Reconnaissance of Sky Lakes Wilderness	NFRN	91	Acres	8000	5
All	Archaeological Testing of Prehistoric Sites	NFRN	92	Sites	5	20
All	Forest-wide Interpretive Sign Projects	NFRN	92	-	-	15
Applegate	C.R. Reconnaissance of Red Buttes Wilderness	NFRN	92	Acres	8000	5
Applegate	Old Star Ranger Station Interpretive Site Construction	NFRN	92	PAOT	10	38
Prospect	Cultural Resource Management Plan for Union Creek Complex	NFRN	92	Acres	100	10
All	Interpretive Site Projects (various)	NFRN	93	PAOT	30	30
All	Archaeological Testing of Prehistoric Sites	NFRN	93	Sites	5	20
All	Obsidian Sourcing and Hydration	NFRN	93	Contract	1	10
All	Forest-wide C.R. Interpretive/Enhancement Plan	NFRN	93	Plan	1	5
Applegate	C.R. Reconnaissance of Red Buttes Wilderness	NFRN	93	Acres	8000	5
All	Update Forest C.R. Overview/Print for Distribution	NFRN	94	-	-	5
All	Archaeological Testing of Prehistoric Sites	NFRN	94	Sites	5	20
All	Interpretive Site Projects	NFRN	94	PAOT	30	15
All	Archaeological Testing of Prehistoric Sites	NFRN	95	Sites	5	20
All	Archaeological Testing of Prehistoric Sites	NFRN	96	Sites	5	25
Prospect	Sky Lakes Wilderness	NFRN	96	Acres	20000	5
All	Interpretive Site Projects	NFRN	97	PAOT	20	15
All	Archaeological Testing of Prehistoric Sites	NFRN	97	Sites	5	25
Ashland	C.R. Management Plan for Big Elk Guard Station	NFRN	97	Plan	1	5
All	Interpretive Site Projects	NFRN	98	PAOT	20	15
All	C.R. Management Plan for Lookouts and other Historic Structures	NFRN	98	Plan	1	5
All	Archaeological Testing of Prehistoric Sites	NFRN	99	Sites	5	25
All	C.R. Reconnaissance of the Rogue-Umpqua Divide Wilderness	NFRN	99	Acres	5000	5

1/ PAOT = Person At One Time

2/ Per Year

## ROADS CAPITAL INVESTMENT

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Applegate	Middlefork Applegate River Bridge, 1040000-03.6	CNTM	90	Structure	1	25
Applegate, Butte Falls, Prospect	Intersections	CNTM	90	Each	4	154
Ashland, Butte Falls, Prospect	Campground Chipseals	CNRN	90	Each	4	125
Prospect	Woodruff Bridge, Route 68	CNTM	90	Structure	1	90
Prospect	Route 68 (Huck Gap)	CNTM	91	Miles	8.1	161
Applegate	Squaw Creek Road - 1075	CNTM	92	Miles	4.7	300
Applegate	Squaw Creek Crossing	CNTM	92	Structure	1	65
Applegate	Bean Gulch Culverts Applegate 1040600 and 1040650	CNTM	92	Structure	2	100
Prospect	Mill Creek Camp Ground, River Bridge Camp Ground and Mammoth Pines Interpretation Area Reconstruction	CNRN	92	Miles	1.7	175
Applegate	McKee Bridge Picnic Site Road Reconstruction	CNRN	93	Miles	0.2	30
Ashland	Wagner Butte Trailhead Road	CNRN	93	Miles	0.1	15
Ashland, Butte Falls	Highway 140 Snow Parks (Rye Springs and Summer Home Road)	CNRN	93	Parking	2	100
Ashland	Fish Lake Camp Ground Reconstruction Possible Sastise Campground Construction	CNRN	93	Miles	1.5	150
Ashland	2060 Reconstruction (Lithia Park to Horn Gap)	CNTM	93	Miles	7.7	400
Butte Falls	Route 37 (34 to 3790)	CNTM	94	Miles	3.7	260
Forest Wide	Pavement Overlays - Various Roads	CNTM	94	Miles	10.0	400
Propsect	Union Creek Camp Ground/Picnic /Visitor Information Site Reconstruction	CNRN	94	Miles	1.1	200
Prospect	Route 6560 Reconstruction	CNTM	94	Miles	4.1	185
Applegate	Cook and Green Trailhead Road	CNRN	95	Miles	0.1	15
Applegate, Prospect	Applegate Lake Road and Parking Reconstruction (Hartish Park, Swayne Viewpoint, Carberry Creek)	CNRN	95	Miles	0.8	220
Applegate	20 (Silver Fork Gap to Wrangle Gap)	CNRN	95	Miles	3.0	400
Ashland	2060 (Four Corners to Morton Street)	CNTM	95	Miles	5.4	400
Applegate	Flumet Flat Camp Ground Road Reconstruction	CNRN	96	Miles	0.4	20
Ashland	20 (Wrangle Gap to Siskiyou Gap)	CNRN	96	Miles	5.5	300
Butte Falls	3050 Reconstruction	CNTM	96	Miles	8.2	140
Forest Wide	Pavement Overlays - Various	CNTM	96	Miles	10.0	400
Prospect	6510 Reconstruction	CNTM	96	Miles	3.0	105
Prospec	6520 Reconstruction	CNTM	96	Miles	16.9	75
Applegate	French Gulch Camp Ground Road Reconstruction	CNRN	97	Miles	0.1	50
Applegate	Joe Dutch Bridge - 1060 Bridge, 1040000-03.6	CNTM	97	Structure	1	75
Ashland	Brown Mountain Trailhead Road Construction	CNRN	97	Miles	0.1	25
Ashland	Wagner Creek Road Reconst.	CNTM	97	Miles	3.7	400

## ROADS CAPITAL INVESTMENT (continued)

Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Ashland	2060 Reconstruction (Horn Gap to Four Corners)	CNTM	97	Miles	12.2	200
Ashland	3730 Reconstruction	CNRN	97	Miles	3.4	210
Prospect	6540 Reconstruction	CNTM	97	Miles	10.1	125
Applegate	Seattle Bar Picnic Site Road Reconstruction	CNRN	98	Miles	0.1	15
Applegate	1030 Reconstruction (Includes Replacement of Two Bridges)	CNTM	98	Miles Structures	12.0 2	160
Applegate	Sturgis Creek Bridge Replacement - 1030400	CNTM	98	Structure	1	80
Ashland	Grizzly Canyon Trailhead Road Construction	CNRN	98	Miles	0.1	15
Ashland	20 Reconstruction (Siskiyou Gap to Ski Area)	CNRN	98	Miles	5.4	500
Butte Falls	Twin Ponds Trailhead Road Construction	CNRN	98	Miles	0.1	20
Prospect	6530 Reconstruction	CNTM	98	Miles	17.0	240
Applegate	Squaw Creek Camp Ground Road Reconstruction and Parking Lot and Boat Ramp Road Construction	CNRN	99	Miles	0.7	125
Applegate	1065 Reconstruction	CNTM	99	Miles	14.1	375
Ashland	Ashland Municipal Watershed Local Roads (2080200 et.al.)	CNTM	99	Miles	20.1	250
Forest Wide	Pavement Overlays - Various Roads	CNTM	99	Miles	10.0	400
Prospect	6620 Reconstruction	CNTM	99	Miles	11.9	200

## FA&amp;O AND OTHER CAPITAL INVESTMENTS 1/

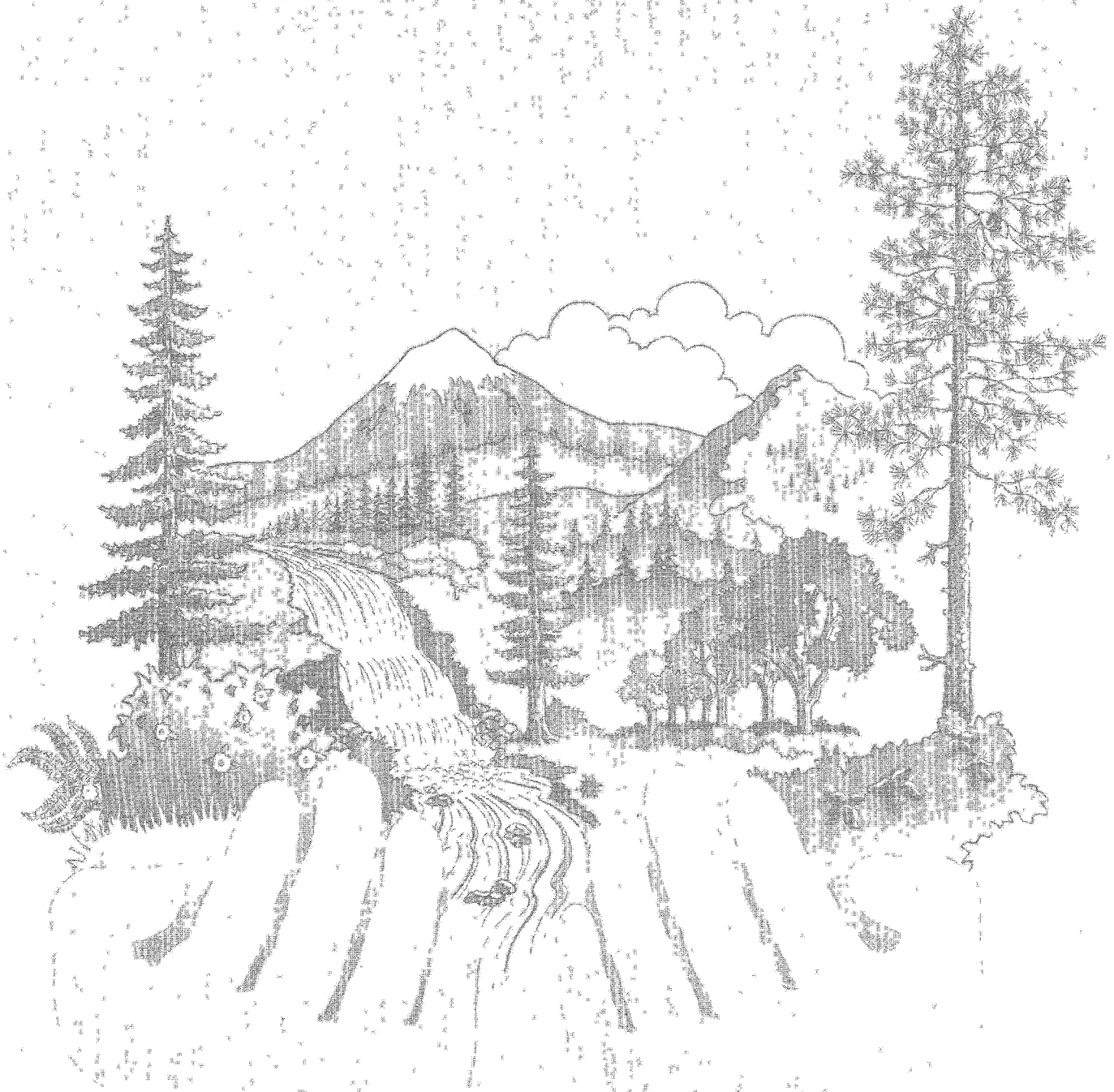
Ranger District	Project Name	Fund Code	FY	Unit Measure	Unit	M \$
Prospect	Replace Underground Storage Tank		90	-	-	40
Prospect	Construct Oil and Gas Canopy	NFFA	90	Sq. Ft.	320	40
Applegate	Addition to Closed Storage Building	BDBD KVKV	91	Sq. Ft.	2400	95
Applegate	Construction of Open Storage Shed	BDBD KVKV	91	Sq. Ft.	4000	98
Applegate	Removal of Old Wellhouse and Seal Well	NFFA	91	-	-	5
Applegate	Relocation of Old Range Station Office	NFRN	91	Sq. Ft.	200	38
Butte Falls	Upgrading of Underground Storage Tanks		91	-	-	58
Prospect	Warehouse Construction	BDBD	91	Sq. Ft.	4800	274
Applegate	Removal of Old Warehouse and Barn	NFFA	92	-	-	22
Applegate	Construction of Seed and Fertilizer Storage Shed	KVKV	92	Sq. Ft.	500	34
Applegate	Upgrading of Underground Storage Tanks	WCF	92	-	-	43
Applegate	Remodel Old Tree Cooler for Pesticide Storage	KVKV	92	Sq. Ft.	120	11
Prospect	Union Creek Water System Development and Expansion	NFFA CNRC	92	-	-	455
Applegate	Rehabilitation of Water System	NFFA	93	-	-	163
Applegate	Relocation of Vehicle Washing Facility	NFFA	93	-	-	33
Applegate	Gas and Oil Building	NFFA	93	Sq. Ft.	400	48
Butte Falls	New Office	NFFA	93	Sq. Ft.	9000	855
Prospect	Rehabilitation and Expansion of Water System	NFFA	93	-	-	515
Prospect	Construct Duplex Living Quarters	NFFA	93	Sq. Ft.	2200	130
Applegate	Warehouse Construction	NFFA BDBD KVKV	94	Sq. Ft.	4000	244
Applegate	Construct Grease and Oil Change Rack	NFFA	95	-	-	22
Butte Falls	Barracks	NFFA BDBD KVKV	95	Sq. Ft.	4000	440
Prospect	Construct Tree Marking Paint Storage	CNTM	96	Sq. Ft.	400	36
Applegate	Security Fencing and Lighting at Administration Site	NFFA	97	-	-	87
Butte Falls	Security Fencing and Lighting at Administrative Site	NFFA	97	-	-	93
Butte Falls	Grading, Paving and Drainage of Administrative Site	NFFA	97	-	-	185
Prospect	Grading, Paving and Drainage of Administrative Site	NFFA	97	-	-	298
Applegate	Grading, Paving and Drainage of Administrative Site	NFFA	98	-	-	275
Prospect	Construction of New Sanitary System	NFFA	99	-	-	610
Prospect	New Underground Electrical Distribution System	NFFA	99	-	-	125

1/ FA&amp;O = Fire General Purpose and Other Capital Investments

# APPENDIX B

## PROJECTED BUDGET

This appendix contains the proposed budget that would be required to implement the Forest Plan activity projects.



## APPENDIX B

# PROJECTED BUDGET

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### INTRODUCTION

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The Projected Budget Table in this Appendix and the 10-Year Activity Schedules in Appendix A are key elements of Plan implementation. The Table displays those funds needed for plan implementation on a multi-year basis. The annual program of work shown here represents the incremental implementation of management direction in the Plan. Outputs and activities in individual years may vary from those shown in the Management Objectives

(Chapter 4) and 10-Year Activity Schedules (Appendix A) depending on actual budget, but will move toward achievement of the desired future condition of the Forest.

The rate of progress is dependent to a large extent upon funding to support activities needed to achieve Plan objectives. The table that follows displays the projected costs and outputs of the first three years of the 10-Year Plan implementation period and the aggregated costs and outputs for the complete 10 Year Plan implementation period.



PROJECTED BUDGET

PROJECTED BUDGET TABLE

BUDGET LINE ITEM	YR1 M\$	YR1 OUT	YR2 M\$	YR2 OUT	YR3 M\$	YR3 OUT	10YR M\$	OUTPUTS
NATIONAL FOREST SYSTEM: (1)								
Minerals area mgt (cases)	198	300	224	300	252	300	2,438	3,000
Real estate mgt	161		174		195		1,895	
Landline location (miles)	264	26	311	26	292	33	2,911	316
Facilities maintenance	324		346		420		4,031	
Forest fire protection	1,233		1,356		1,408		13,853	
Cooperative law enforcement	70		265		305		2,766	
Road maintenance (miles)	897	3,045	1,187	3,045	1,731	2,942	15,931	29,626
Trail maintenance (miles)	154	488	178	488	178	360	1,755	3,856
Timber sales pre/admin (MMBF) (2)	3,120	140	3,619	120	4,101	120	39,547	1,195
Reforestation and TSI	2,935		2,609		3,106		23,523	
Reforestation acres (3)		1,171		1,300		1,250		9,646
Tbr stand imp acres (3)		1,498		3,674		2,669		11,577
Recreation use (M PAOT Days)	1,318	1,021	1,353	628	1,723	612	16,456	6,545
Wildlife & Fish hab mgt (4)	452		805		1,493		13,201	
Wildlife habitat acres		385		427		427		4,228
Fish habitat acres		20		17		17		173
T&E habitat acres		14		17		17		167
Wildlife habitat structures		50		52		52		518
Fish habitat structures		17		75		76		700
T&E habitat structures		12		12		12		120
Range mgt (acres) (5)	141		150		278		2,514	
Range non-structural		0		55		59		481
Range structures		8		8		20		176
Noxious Weeds (acres)		65		10				121
Soil/Water/Air mgt (acres) (6)	368	0	595	253	915	76	8,283	861
General administration (7)	1,165		1,801		1,803		17,390	
TOTAL, National Forest System	12,800		14,973		18,200		166,503	
Construction								
Facilities (each)	114	0	0	0	0	0	1,148	3
Recreation (PAOT's)	22	150	137	1,095	252	0	3,198	2,595
Forest Roads (miles)	2,058	24	1,917	12	1,916	17	22,571	201
Trails (miles)	162	12	181	16	160	9	1,833	128
TOTAL, Construction (8)	2,356		2,235		2,328		28,750	
Land acquisition (acres)	0	0	0	0	0	0	0	0
Range betterment fund (acres)	11	30	10	30	11	0	194	290
Noxious Weeds (acres)		0		0		30		271
Brush disposal (acres) (9)	1,307	4,300	1,347	4,100	1,540	4,500	13,057	38,300
Timber purch const (miles)	1,822	52	1,320	43	1,320	47	13,899	478
Timber salvage sales (MMBF) (10)	210	5	365	5	751	5	6,583	50
KV-Ref/TSI/other (11)	5,676		4,970		5,246		48,500	
Reforestation acres		5,116		3,736		3,649		34,464
TSI acres		2,365		2,693		2,724		32,323
CWFS-other	632		587		629		6,250	
GRAND TOTAL	24,814		25,807		30,025		283,736	

Notes

All dollars are in FY 90\$, no inflation on outyear dollars.

Headings: Out is abbreviation for OUTPUT

- (1) Refers to Appropriated dollars.
- (2) Output declines slightly after YR 6 to make up for YR 1's above average output.
- (3) Backlogs are significantly reduced by 2nd half of decade.
- (4) Significantly higher \$ from YR 3 on due to significant increases in workload in this program area.
- (5) Range \$ increase to become fully funded program.
- (6) Significantly higher \$ from YR 3 on due to significant increases in workload in this program area.
- (7) GA is also funded by BD, SS, KV and CWFS
- (8) Vary significantly from year to year due to timing of capital investments.
- (9) Acres will decline in years 4 and beyond.
- (10) Costs increase significantly due to increased support costs.
- (11) KV program will finance bulk of REF/TS1 beyond YR 5 of decade

# APPENDIX C

## OFF-ROAD VEHICLE IMPLEMENTATION

This appendix summarizes the Forest Plan direction regarding the use of off-road vehicles.



## APPENDIX C

# OFF-ROAD VEHICLE MANAGEMENT PLAN

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## INTRODUCTION

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This appendix summarizes the direction found in the Forest Plan regarding the use of off-road vehicles (ORV's) on the Rogue River National Forest and outlines the process used to further refine this direction in the future through Forest Plan implementation. As used in this appendix, the terms "off-highway" and "off-road" are synonymous.

Various laws, regulations, and Executive Orders recognize on-road and off-road uses as legitimate activities on National Forests. Executive Order 11644, as amended by Executive Order 11989, directs that the designation of off-road vehicle areas shall be based upon minimizing damage to soils, watersheds, vegetation, and other resources, and minimizing conflicts with other uses.

Regulation 36 CFR 219.21(d), requires that the Forest Service consider the impacts of proposed recreation activities on other uses and values and the impacts of other uses and activities associated with them on recreation opportunities, activities, and quality of experience. Off-road vehicle use is specifically addressed by 36 CFR 219.21(g):

Off-road vehicle use shall be planned and implemented to protect land and other resources, promote public safety, and minimize conflicts with other uses of the National Forest System lands. Forest planning shall evaluate the potential effects of vehicle use off-roads and, on the basis of the requirements of 36 CFR 295 of this chapter, classify areas and trails of National Forest System lands as to whether or not off-road vehicle use may be permitted.

Forest Service Handbook 7709.55 (Transportation Planning) sets forth a process for "Access Management." Under this process, "Access Management

Objectives" are developed to accomplish the Management Area direction (Management Strategies) found in the Forest Plan. Road Management Objectives, defining the intended purpose of individual roads, and Off-Highway Travel Management Objectives, describing intended off-road recreational experiences, are developed from the Access Management Objectives. This is an on-going process that is a part of Forest Plan implementation and may occur through specific project planning, integrated resource management analysis, or at any time the need for review of existing Road or Access Management Objectives is warranted.

## CURRENT USE

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Currently, the greatest off-road vehicle uses on the Forest are the snowmobile trail systems in the Fish Lake Area and the Upper Rogue Area. Both trail systems make extensive use of Forest Service arterial and collector roads. (See Jackson/Klamath winter trails map.)

Some of these roads are used occasionally for winter logging. Special coordination is necessary whenever such conflict occurs. The access and travel management process should address and resolve potential conflicts between winter logging and recreation use. Solutions may include such things as excluding winter hauling on some roads, excluding snowmobile use, various forms of joint use, or plans for by pass routes.

## DIRECTION

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Specific Management Area direction relating to off-road vehicle use is found in the individual management strategies in Chapter 4 of this Plan. The following is a summary of that direction:

## OFF-ROAD VEHICLE MANAGEMENT PLAN

Management Area	Area Off-Road Vehicle Direction
1. Minimum Management	ORV permitted.
2. Backcountry Motorized	Restricted to designated roads and trails, except that over-snow seasonal use of areas may be permitted.
3. Backcountry Non-motorized	Prohibited, except that over-snow seasonal use of areas or designated trails may be permitted.
4. Developed Recreation	Restricted to designated roads and trails.
5. Special Interest Area	Restricted to specific routes and to those areas where management determines use is compatible with the special area.
6. Foreground Retention	Permitted if it will not compromise visual quality objective.
7. Foreground Part. Ret.	Permitted if it will not compromise visual quality objective.
8. Middleground Retention	Permitted if it will not compromise visual quality objective.
9. Middleground Part. Ret.	Permitted if it will not compromise visual quality objective.
10. Wild River	Prohibited.
11. Scenic River	Restricted to designated roads and trails.
12. Botanical Area	Restricted to designated roads.
13. Wilderness	Prohibited.
14. Big Game Winter Range	Permitted on designated roads and trails when not in conflict with winter range objectives.
15. Old Growth	Restricted to designated roads and trails.
16. Mature Habitat	Restricted to designated roads and trails.
17. Primary Range	Permitted if it will not compromise livestock and forage values.
18. Secondary Range	Permitted if it will not compromise livestock and forage values.
19. Spotted Owl Habitat	Restricted to designated roads and trails.
20. Timber Suited 1	Permitted when not in conflict with timber management or other resource objectives.
21. Timber Suited 2	Restricted to designated roads and trails.
22. Restricted Watershed	Prohibited.
23. Managed Watershed	Permitted only where not in conflict with watershed management objectives. Restricted to designated roads and trails, except that over-snow seasonal use of certain areas may be permitted.
24. Managed Riparian	Restricted to designated roads and trails. When sufficient snow is present, oversnow vehicle use is permitted on all roads.
25. Research Natural Area	Prohibited.
26. Restricted Riparian	Restricted to designated roads and trails. When sufficient snow is present, oversnow vehicle use is permitted on all roads.

## **TRAFFIC LAWS AND ORDERS**

State traffic laws have been made applicable to National Forest transportation system roads by order of the Chief of the Forest Service. These laws set minimum standards for vehicles to be operated on highways. They differ by State. As of the date of publication of this Forest Plan:

Operating an off-road vehicle on a road open to traffic is prohibited in Oregon unless the route has been designated for use by off-road vehicles. With certain modifications, such as adding mirrors and stop lights, it is possible to make an off-road vehicle "highway legal." However, the general effect of Oregon State law is to prohibit off-road vehicle use of Forest Service roads managed as open to traffic (Maintenance Levels 2-5). When such use is necessary to meet Access Management Objectives, the route should be designated by Forest order and signed accordingly on the ground.

Operating an off-road vehicle on a road maintained for passenger car traffic is prohibited in California. However, it is legal to operate an off-road vehicle on a road maintained for high clearance vehicles. Therefore, off-road vehicles are prohibited on Forest Service roads managed in Maintenance Levels 3-5 while their use is permissible on roads managed in Maintenance Levels 1 and 2.

In both States, when a road is covered by at least a foot of unplowed snow, it is legal to operate an oversnow vehicle on the road. Therefore, a closure order would be required to prohibit use.

Orders of the Forest Supervisor are issued and enforced to implement management area direction defined in the management strategies and refined

through Forest Plan implementation. In addition, orders may be issued to regulate special situations not specifically mentioned in the Management Area direction. As of the date of publication of this plan, orders of the Forest Supervisor regulating special off-road vehicle use situations have been issued with the following prohibitions:

Operating any vehicle off roads in violation of State law established for vehicles used off roads.

Using any vehicle other than a snowmobile on the Pacific Crest National Scenic Trail.

Being in an area closed to protect Threatened, Endangered, or Sensitive species.

Using any vehicle other than a snowmobile on a specified snowmobile route when so posted.

Using any motorized vehicle anywhere except on a designated (by green dot) open road within an established big-game regulated hunt area during the closure period.

Using an off-road vehicle on National Forest land in Section 34, T39S, R1W (Wagner Gap Area).

Using an off-road vehicle both on or off a road between the Mt. Ashland Ski Area parking lot and Siskiyou Gap.

Possessing or using a vehicle, other than a snowmobile, between December 1 and April 30 in the following locations:

Off of Road 3770 (Blue Rock Road).

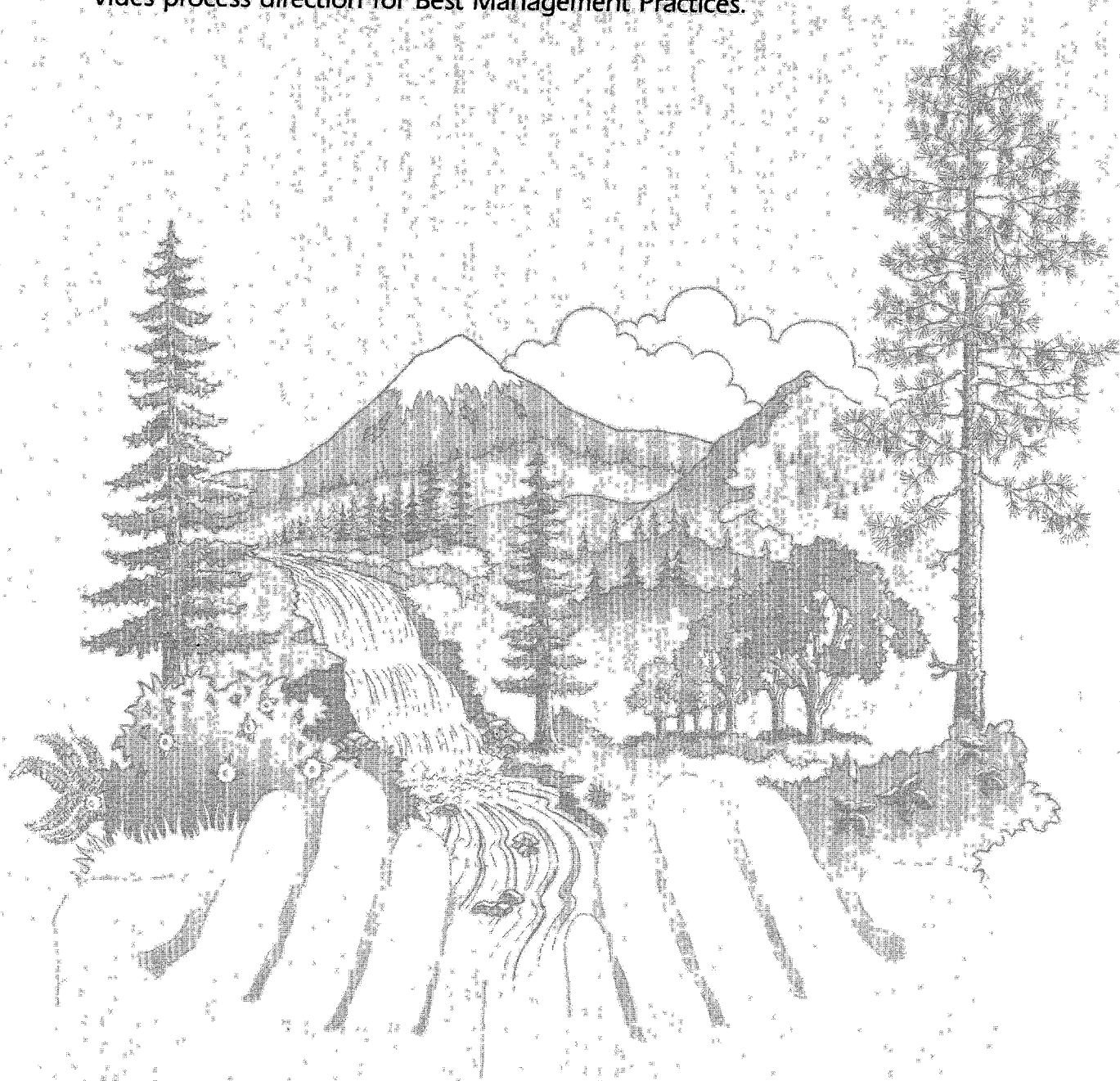
Ash Swale Area.

Willow Prairie Fenced Meadow.

# APPENDIX D

## STREAMSIDE MANAGEMENT AND BEST MANAGEMENT PRACTICES

This appendix summarizes the Forest's streamside management guidelines and provides process direction for Best Management Practices.





APPENDIX D

# BEST MANAGEMENT PRACTICES (BMPs) AND STREAMSIDE MANAGEMENT GUIDELINES

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This appendix contains two sections which summarize and further explain the management direction provided in this Plan. The first section describes the streamside management guidelines, and the second describes the Best Management Practices (BMPs) process.

## STREAMSIDE MANAGEMENT GUIDELINES

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Streams on the Forest are classified into various Stream Classes, based on the uses made of the water and the potential effects of on-site changes on downstream uses. These present and foreseeable uses are the criteria for defining four Stream Classes. It is important to note that a stream may be segmented into several classes as various segments of stream may hold different levels of importance.

**Class I.** Perennial or intermittent streams or segments thereof that have one or more of the following characteristics:

Direct source of water for domestic use (FSM 2543 - cities, recreation sites, and so forth).

Used by large numbers of fish for spawning, rearing or migration.

Flow enough water to be a major contributor to the quantity of water in a Class I stream.

**Class II.** Perennial or intermittent streams or segments thereof that have one or both of the following characteristics:

Used by moderate though significant numbers of fish for spawning, rearing or migration.

Flow enough water to be a moderate or not clearly identifiable contributor to the quantity of water in a Class I stream, or be a major contributor to a Class II stream.

**Class III.** All other perennial streams or segments thereof not meeting higher class criteria.

**Class IV.** All other intermittent streams or segments thereof not meeting higher class criteria.

An inventory of each stream, by stream class was completed for the Forest Plan. These maps are available for review in the Supervisor's office. However, further field verification of these stream classifications and proposed stream class delineations will continue to occur as the Plan is implemented. This most often occurs at the time of project-level planning, where activities are planned for areas adjacent to stream segments, and is usually completed at the time of environmental analysis.

Management direction for Class I, II and III streams in this Plan is provided in Management Strategy 26, Restricted Riparian. In several alternatives in the EIS, management of some streams under Strategy 24, Managed Riparian, was considered. However, this strategy was not selected for any stream management in the Preferred Alternative, described in this Plan.

In summary, the goal of Management Strategy 26 is to protect the unique riparian habitats associated with perennial streams for wildlife, fishery, and other beneficial uses. The strategy includes no programmed timber harvest, and discourages or prohibits other conflicting uses within the riparian area (such as new developed recreation sites). It is applied to all perennial streams (Class I, II, and III) and land within 100 feet, horizontal distance from the high water level or the area adjacent to the stream

which contains an associated riparian vegetative community (whichever is greater). Geographical boundaries of these areas are determined by on-site characteristics of soil and vegetation. It also includes lakes, floodplains, and wetlands.

Intermittent streams (Class IV) are recognized for their importance to the fishery resource as a provider of seasonal habitat and water. Protection of these streams is provided for in all other strategies through Standards and Guidelines (see Chapter IV, Management Strategies, Water section). In summary, streamside management requirements for these streams are primarily addressed through the implementation of Best Management Practices (BMPs). The BMPs take into account site-specific conditions, feasibility, water quality standards, and the potential for impact based on the activity being proposed. The second part of this appendix describes the BMP process in detail. Examples of items to be addressed might be distance restrictions from streams for equipment operation, erosion control methods, or vegetation treatment recommendations or restrictions to protect stream values.

## **BEST MANAGEMENT PRACTICES**

Best Management Practices (BMPs) are defined as "methods, measures, or practices selected by an agency to meet its nonpoint source control needs. BMPs include, but are not limited to, structural and non-structural controls, operations, and maintenance procedures. BMPs can be applied before, during, and after pollution-producing activities to reduce or eliminate the introduction of pollutants into receiving waters." (40 CFR 130.2, EPA Water Quality Standards Regulation).

Usually BMPs are applied as a **system** of practices rather than as a single practice. BMPs are selected on the basis of site-specific conditions that reflect natural background conditions and political, social, economic, and technical feasibility. (EPA Interagency Nonpoint Task Force, 1985).

BMPs are basically a preventative rather than an enforcement system. BMPs are a whole management and planning system in relation to sound water quality goals, including both broad policy and site-specific prescriptions.

Best Management Practices are the primary mechanism to enable the achievement of water quality standards. (Environmental Protection Agency, 1987). BMPs will be selected and tailored for site-specific conditions to arrive at the project-level BMPs for the protection of water quality. The process for determining appropriate BMPs, and for ensuring their implementation at both the Forest Plan and Project level, is described in this section.

Nonpoint sources: Refers to diffuse or unconfined sources of pollution where wastes can either enter into, or be conveyed by the movement of water to, public waters (Oregon Water Quality Standards, 340-41-007(17)). Silvicultural sources, such as erosion from a harvest unit or surface erosion from a road, are considered nonpoint sources.

## **METHODS AND PROCEDURES**

Following is a description of the methods and procedures that will be used to control or prevent nonpoint sources of pollution from resource management activities and to ensure compliance with the:

**Clean Water Act of 1972**, as amended (1977 and 1987). Section 319 of the Clean Water Act Amendments of 1987 requires that the States determine those waters that will not meet the goals of the Act, to determine those nonpoint source activities that are contributing pollution, and to develop a process of determining BMPs to reduce such pollution to the "maximum extent practicable". This Appendix is designed to fulfill the intent of the requirements of Section 319.

**Oregon Administrative Rules** (Chapter 340-41-001-975). Department of Environmental Quality (DEQ). Oregon's Administrative Rules contain water requirements for the protection of identified beneficial uses of water.

**Memorandum of Understanding:** The Oregon Department of Environmental Quality and U.S. Department of Agriculture Forest Service (2/12/79, and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest Lands in the Pacific Northwest 12/78, and Best Management Practices for Range and Grazing Activities on Federal Lands, respectively).



The EPA has certified the Oregon Forest Practices Act as BMPs. The State of Oregon compared Forest Service practices with these State practices and concluded that Forest Service practices meet or exceed State requirements. As State practices change, comparisons are made to ascertain that Forest Service practices meet or exceed these changes. Monitoring and evaluation will determine the need for changes in BMPs and/or State standards.

**California's Porter-Cologne Water Quality Control Act** (California Water Code, Division 7). The Water Quality Control Plan for the North Coast Region was approved by the North Coast Regional Water Quality Control Board on April 28, 1988. It is pending approval by the State Water Resources Control Board and the Environmental Protection Agency.

The Draft North Coast Regional Water Quality Control Plan contains water quality objectives that are considered necessary to protect those present and probable future beneficial uses of water.

**Management Agency Agreement:** BMPs used for water quality management on National Forest System lands within the State of California were originally submitted to the State of California Water Resources Control Board (SWRCB) in 1979. With the exception of BMPs 5-8 through 5-14, the practices were certified by the SWRCB and approved by the Environmental Protection Agency (EPA) in 1981. The USFS was designated as the Water Quality Management Agency for NFS lands in California. In August, 1983, BMPs 5-8 through 5-14 were certified by the SWRCB and approved by the EPA.

Forest Services management practices will meet, as a minimum, the substantive State BMP requirements, and other considerations required by the National Forest Management Act (NFMA), and other authorities, for the protection of the soil and water resources.

The general BMPs described herein are action-initiating mechanisms which call for the development of detailed, site-specific BMP prescriptions to protect beneficial uses and meet water quality objectives. They are developed as part of the NEPA process, with interdisciplinary involvement by a team of individuals that represent several areas of

professional knowledge, learning, and/or skill appropriate for the issues and concerns identified. BMPs also include such requirements as Forest Service manual direction, contract provisions, environmental documents, and Forest Plan Standards and Guidelines. Inherent in prescribing project-level management requirements is recognition of specific water quality objectives which BMPs are designed to achieve.

## BMP IMPLEMENTATION PROCESS

In cooperation with the State, the primary strategy for the prevention and control of nonpoint sources is based on the implementation of BMPs determined necessary for the protection of the identified beneficial uses.

The objective is to identify the most practical means of attaining water quality objectives. Water quality objectives include water quality measures that adequately reflect the needs of identified beneficial uses.

The Forest Service Nonpoint Source Management System consists of:

- Selection and design of BMPs based on site-specific conditions, technical, economic and institutional feasibility, and the water quality standards of those waters potentially impacted.

- Implementation and enforcement of BMPs.

- Monitoring to ensure that practices are correctly applied as designed.

- Monitoring to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.

- Evaluation of monitoring results and mitigation where necessary to minimize impacts from activities where BMPs do not perform as expected.

- Adjustment of BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluation of the appropriateness of water quality criteria to reasonably assure protection of

beneficial uses. Consideration of recommending adjustment of water quality standards.

## **BMP SELECTION AND DESIGN - STEP 1**

**Scoping:** Potential concerns are identified, e.g., water quality, as part of the NEPA process for environmental analysis. Public notices are dispersed inviting comment and participation in the process. Alternatives are developed to address potential problems and to accomplish project objectives.

**Environmental analysis:** Each alternative is evaluated for its potential effect on different resources, including water. From this analysis, a preferred alternative is identified, along with the measures (BMPs) needed to reduce risk and increase the potential for success.

**Documentation:** An Environmental Assessment (EA) or Environmental Impact Statement (EIS) is developed with a decision notice and includes required measures (BMPs).

Water quality standards are used as objectives towards which practices are designed to protect beneficial uses.

Appropriate BMPs are selected for each project by an interdisciplinary team. BMP selection and design are dictated by water quality objectives, soils, topography, geology, vegetation, climate, economics, institutional constraints, etc. Environmental effects and water quality protection options are evaluated and a range of practices is considered. A final set of practices are selected that not only protect beneficial uses, but meet other resource needs. These final selected practices constitute the BMPs.

The selected BMPs, an estimate of their effectiveness, and a plan for monitoring them is included in the project EA or EIS. The site-specific BMP prescriptions are normally included in project implementation plans, but may also be included in the body or appendix of a project environmental document.

## **BMP IMPLEMENTATION AND ENFORCEMENT - STEPS 2 AND 3**

The site-specific BMP prescriptions are taken from Plan-to-ground by a combination of project layout and resource specialists (hydrology, fisheries, soil, geology, etc.). Final adjustments to fit the BMP prescriptions to the site are made before implementing the resource activity.

When the resource activity (e.g., timber harvest or road construction) begins, timber sale administrators, engineering representatives, resource specialists, and others ensure that the BMPs are implemented according to Plan. A similar implementation process is used for other resource activities (range management, mining, etc.) on National Forests.

BMP implementation monitoring is done before, during, and after resource activity implementation. This monitoring answers the question: Did we do what we said we were going to do? Some examples of implementation monitoring for a streamside management unit BMP prescription may be:

**Before project:** checking Stream Management Units (SMUs) along streams to see if layout meets the objectives of the BMP prescription, or if the road crossing of a stream is properly located and designed per estimates made during the environmental analysis.

**During project:** during timber felling, the timber sale administrator checks to see if the timber fallers understand marking prescription for timber to be felled in the SMU. The timber sale administrator also observes on-going harvest operations to see if the activity meets the objectives defined in the project plan.

**After project:** measuring canopy stream shading to see if the amount specified in the BMP prescription was retained, or monitoring a beneficial use of the water to determine a change or trend in use.

Enforcement is carried out primarily through internal project reviews and contractual enforcement e.g., timber sale contract, grazing or special use permit, etc.

Contract enforcement is a more formal method used to achieve desired results. Normally, each project is assigned a person as a contracting officer. For timber sales, that person is called a timber sale administrator. The project is routinely monitored to ensure that practices are being carried out in the manner and method prescribed in the contract, permit, etc. When a contractor or permittee is not in compliance, they can be held in breach with penalties (e.g., bond forfeiture) until remedies are implemented.

Often during the course of an activity, adjustments are made if it is determined that unsatisfactory results are currently resulting or may occur. This can often mean that a contract modification may be necessary (as in the case of a timber sale).

#### **BMP MONITORING - STEP 4**

Once BMPs have been implemented, further monitoring is done to evaluate their effectiveness. BMP "effectiveness monitoring" answers the question: Are BMPs effectively meeting management objectives for protection of water quality?

Water quality standards are the "yardstick" against which the effectiveness is tested. If, through objective monitoring, BMPs do not meet prescribed objectives, then information is available to modify either the BMPs for future management, or the objectives, or both. The natural variability of water quality under unmanaged conditions is an important factor that will be considered during the monitoring and evaluation. Additionally, effectiveness monitoring will include measurement against land management objectives as well as water quality objectives.

Some examples of the types of BMP effectiveness monitoring to be conducted are:

Measuring stream temperatures to see if the riparian prescriptions in a watershed are maintaining water temperature.

Storm period surveillance monitoring of a road system to see if road rocking is effectively preventing road surface erosion.

The monitoring and evaluation section of the Forest Plan, (Chapter 5), provides that monitoring of BMPs

will be accomplished on an appropriate sample basis. Once a specific project is designed, a site-specific monitoring plan may be developed.

Results of monitoring should be shared with State and local agencies as well as available to the public. Monitoring design, sampling, and laboratory analyses will be coordinated.

#### **BMP EVALUATION AND ADJUSTMENT - STEP 5 AND 6**

The technical evaluation/monitoring described above will determine how effectively BMPs protect and/or improve water quality. If the evaluation indicates that water quality objectives are not being met and/or beneficial uses do not appear to be receiving adequate protection, corrective action will consider the following three components:

The BMP: Is it technically sound? Is it really best, or is there a better practice which is technically sound and feasible to implement?

The implementation program or processes: Was the BMP applied entirely as designed? Was it only partially implemented? Were personnel, equipment, funds, or training lacking which resulted in inadequate or incomplete implementation?

The water quality standards: The water quality standards are established to protect the beneficial uses of water. They include numeric and narrative criteria that, when exceeded, are assumed to indicate detrimental impacts on beneficial uses. They are intended to provide a benchmark for evaluating harm to beneficial uses.

Assessing the applicability of the standards is a responsibility of the State. The Forest Service will provide information to the State to address the following types of questions:

Do the standards describe the conditions necessary for protecting beneficial uses?

Are standards higher or lower than that necessary for protecting beneficial uses?

Do the standards reflect the natural variability occurring within the natural and human-affected ecosystem?

Do the parameters and criteria that constitute water quality standards adequately reflect (are they sensitive enough) human-induced changes to water quality and beneficial uses?

"Validation" monitoring may be needed to make this assessment. The purpose of validation monitoring is to answer the question whether standards, coefficients, requirements, and guidelines are appropriate to meet objectives, e.g., protect beneficial uses.

Examples: (1) Did the change in water temperature impact the fish population?  
(2) Did the soil compaction affect tree growth?

Validation Monitoring will need to be closely coordinated with or, in some cases, conducted by research. It may require the establishment of permanent plots or administrative studies. This kind of monitoring will be very limited and will require coordination to select projects with broad application and to prevent duplication. Only those coefficients and standards that are not reasonably validated by existing research or documentation should be candidates for this monitoring.

Corrective action may be initiated once the reason for failing to achieve the management objectives is determined. The management practice may have to be changed, the water quality objectives modified, or both.

## TRAINING

National Forest personnel involved with project location, design, layout, administration, and maintenance activities will receive BMP training. The training will consist of BMP awareness, as well as on the more technical aspects such as planning, implementation, monitoring, and evaluation.

## GENERAL BMPs AND EXAMPLES

Individual, general Best Management Practices are described in:

### California

Water Quality Management For National Forest Systems Land in California - Best Management Practices, Chapter 10, Draft Soil and Water Conservation Handbook, Pacific Southwest Region, San Francisco, March 1988.

### Oregon

General Water Quality Best Management Practices, Pacific Northwest Region, 11/88.

Included in the General Water Quality Best Management Practices document is a description of the process and limitations and use of these BMPs. This document, while providing guidance, is not considered direction.

The sensitivity of the project determines whether the site-specific BMP prescriptions are included in the EA/EIS, or in the sale/project plan, or in the analysis files.

Not all of the general BMPs listed will normally apply to a given project, and there may be specific BMPs which are not represented by a general BMP in this document.

Each general and site-specific BMP consists of the Title, Objectives, Explanation, Implementation and Responsibility, Ability to Implement, Effectiveness, and Monitoring. Each section with a brief description follows:

**Title:** Includes the sequential number of the practice and a brief title.

**Objective:** Describes the objectives of the BMP and the desired results for protecting water quality.

**Explanation:** Further defines the brief title, and describes under what conditions and how the practice is applied. Criteria or standards are described when applicable. This section contains a description of the range of site-specific water quality protection measures to be implemented.

**Implementation and Responsibility:** Describes how the practices are expected to be applied and identifies the person(s) responsible for implementing the BMP.

**Ability to Implement:** Provides a qualitative estimate of the ability of the Forest Service to implement the BMP. The estimate is made at either the project level or Forest Plan level. Criteria for rating the "ability to implement" general BMPs is included at the end of this appendix.

**Effectiveness:** Provides a qualitative assessment of the expected effectiveness that the applied measure will have on preventing or reducing impacts on water quality and beneficial uses. The effectiveness of each BMP will be evaluated with an index that rates the effectiveness of each BMP at either the project level or Forest Plan level. Criteria for rating "effectiveness" of general BMPs is included at the end of this appendix.

**Monitoring:** Either describes how the site-specific practices for this BMP will be monitored, or lists the appropriate section of the Forest Plan Monitoring Plan (see Appendix) that would verify implementation and/or effectiveness.

#### GENERAL BMP EXAMPLE

Following is an example of a general BMP, as described in Oregon's General Water Quality Best Management Practices, along with an example of a site specific BMP which is developed at the project level.

##### **T-5. Title: Limiting the Operating Period of Timber Sale Activities**

**Objective:** To ensure that the Purchaser conducts operations in a timely manner, within the time period specified in the Timber Sale Contract (TSC).

**Explanation:** The TSC specifies a Normal Operating Season, during which, operations may generally proceed without resource damage. Operations are permitted outside the Normal Operating Season only when they can be conducted without damage to soil, water, and other resources. Where determined to be necessary through the environmental analysis, the TSC will limit operations to specific periods

or weather conditions. Operations are not permitted to continue if damage will occur.

**Implementation & Responsibility:** Limited operating periods are identified and recommended during the Timber Sale Planning Process by the interdisciplinary team and followed through the life of the timber sale primarily by the Sale Administrator.

**Ability to implement:** Add at project level.

**Effectiveness:** Add at project level.

**Monitoring:** During implementation of timber sale activities by the Sale Administrator, Forest Service Representative (FSR), engineers, and watershed specialists. Also see Forest Plan monitoring plan, monitoring plan item: Water Resource Monitoring.

#### SPECIFIC BMP EXAMPLE

##### **PT-5. Title: Limiting the Operating Period of Timber Sale Activities**

**Objective:** To ensure that the Purchaser conducts operations in a timely manner, within the time period specified in the Timber Sale Contract (TSC).

**Explanation:** The Ship Mountain Timber sale contains sensitive soils that are subject to soil compaction during tractor skidding, and a non-surfaced road that is not suitable for wet weather haul.

The normal operating season for the Forest will be enforced for the Ship Mountain Timber sale. All operations off road FR 10 (non-surfaced) will be halted at the onset of wet weather to prevent erosion and damage to the road. Tractor skidding on units 1-5 will be restricted if soil moisture is above the level established by the soil scientist. Other operations can continue outside the normal operating season if they can be conducted without damage to soil, water, and other resources.

**Implementation and responsibility:** For the Ship Mountain Timber sale the normal operating season for the Forest will be enforced. All operations off road FR 10 (non-surfaced) will be halted at the onset of wet weather to prevent erosion and damage to the road. Other operations can continue outside the normal operating season if they can be conducted without damage to soil, water, and other resources.

The Forest watershed specialists will work with the timber sale administrators to evaluate the potential for resource damage if operating outside the normal operating season.

**Ability to implement:** High

**Effectiveness:** High

**Monitoring:** During implementation of timber sale activities by the Sale Administrator, Forest Service Representative (FSR), engineers, and watershed specialists. Also see Forest Plan monitoring plan, monitoring plan item: Water Resource Monitoring.

### CRITERIA FOR RATING "ABILITY TO IMPLEMENT" AND BMP "EFFECTIVENESS"

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Estimates are made at the project level when specific BMPs are developed.

**"Ability to implement":** Provides a qualitative estimate of the ability of the Forest Service to implement the BMP. The following index is used to rate the ability to implement as either **High**, **Moderate**, or **Low**:

**High:** Almost certain the BMP can be implemented as planned.

**Moderate:** Greater than 75% certainty the BMP can be implemented as planned.

**Low:** Less than 75% certainty the BMP can be implemented as planned.

**"Effectiveness":** Provides a qualitative assessment of the expected effectiveness that the applied measure will have on preventing or reducing impacts on water quality and beneficial uses. The effectiveness of each BMP will be evaluated with an index that rates the effectiveness of each BMP as either **High**, **Moderate**, or **Low**. The index is:

Effectiveness of the BMP as indicated by literature and research, administrative studies, and professional experience.

**High:** Practice is highly effective (greater than 90%) and one or more of the following types of documentation are available:

- (a) Literature/Research - must be applicable to area.
- (b) Administrative studies - local or within similar ecosystem.
- (c) Experience - judgement of an expert by education and/or experience.
- (d) Fact - obvious by reasoned (logical) response.

Implementation and effectiveness of this practice will be monitored and the practice will be modified if necessary to achieve the objective of the BMP.

**Moderate:** Documentation shows that the practice is effective less than 90% of the time, but at least 75% of the time.

or

Logic indicates that this practice is highly effective, but there is little or no documentation to back it up.

Implementation and effectiveness of this practice will be monitored and the practice will be modified if necessary to achieve the objective of the BMP.

**Low:** Effectiveness unknown or unverified, and there is little or no documentation.

or

Applied logic is uncertain in this case, or the practice is estimated to be less than 75% effective.

This practice is speculative and needs both effectiveness and validation monitoring.

## REFERENCES

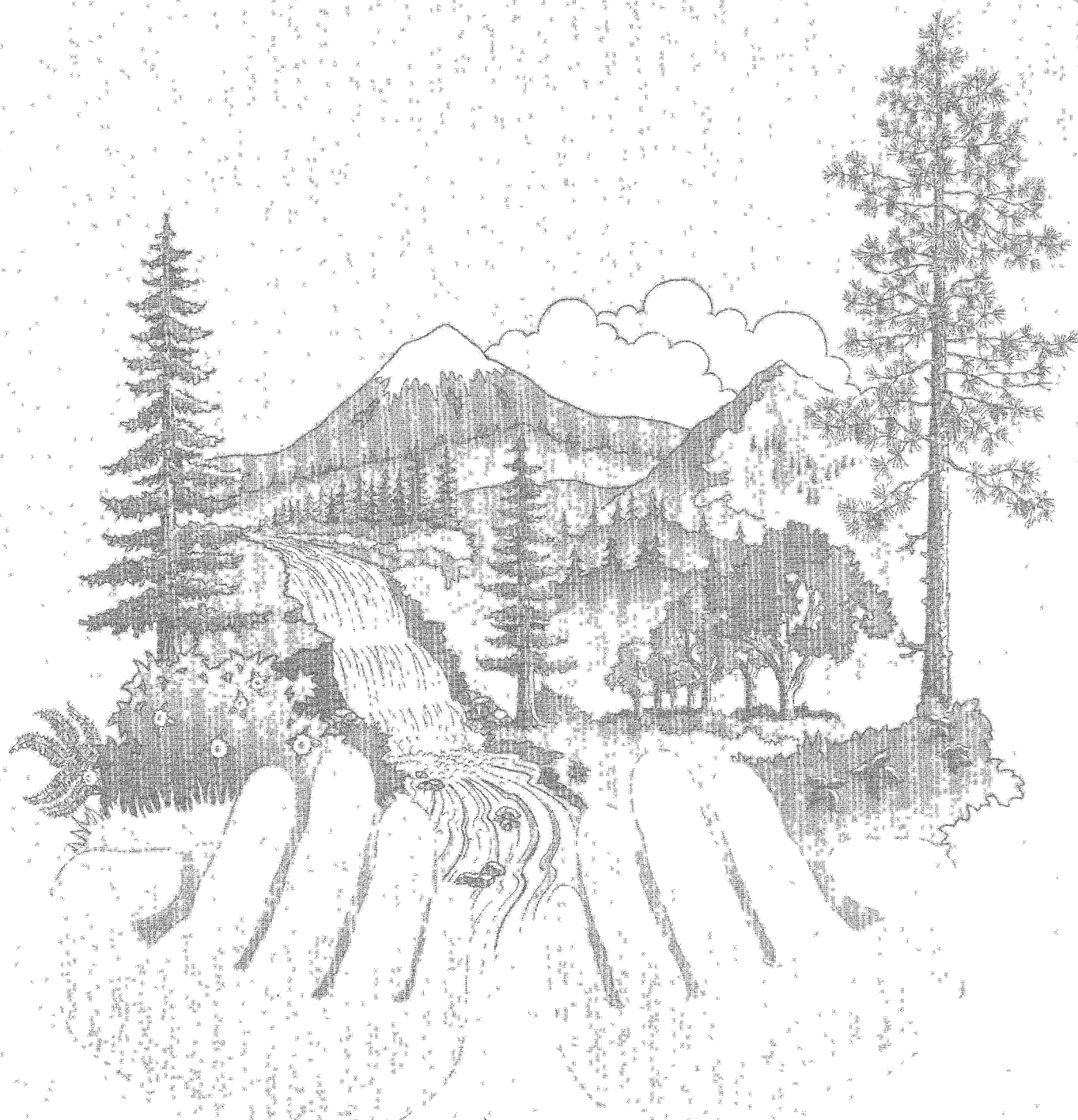
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# APPENDIX E

## WILDERNESS PLANS AND IMPLEMENTATION SCHEDULES

This appendix contains the management direction and management objectives for the Red Buttes and Sky Lakes Wilderness Plans.





## Appendix E

# RED BUTTES WILDERNESS IMPLEMENTATION PLAN

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## INTRODUCTION

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The Oregon Wilderness Act, PL 98-328, signed into law on June 26, 1984, and the California Wilderness Act, PL 98-425, signed into law on September 28, 1984, established the Red Buttes Wilderness.

The Rogue River, Siskiyou and Klamath National Forests share the administrative responsibility for the Red Buttes Wilderness. This plan implements wilderness management strategies given in the Land Management Plans of the three National Forests involved. The Rogue River National Forest is the lead Forest for planning purposes for the Red Buttes Wilderness.

The purpose of this plan is to identify existing management situations in the Red Buttes Wilderness, to provide long-range management objectives, and to give direction under which specific action items will be identified and accomplished.

## OVERVIEW OF MANAGEMENT SITUATION

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### LOCATION AND AREA

The Red Buttes Wilderness is located in Josephine County, Oregon, and Siskiyou County, California, approximately 30 miles southwest of Medford, 40 miles south of Grants Pass, Oregon, and 55 miles northwest of Yreka, California. For the most part, it occupies the north slope of the Siskiyou Mountains' crest, from near Cook and Green Pass on the east to near Sucker Creek Gap on the west. This portion comprises the headwaters of the Applegate River. Smaller sections of the Wilderness are located in the Illinois River drainage and the Klamath River drainage.

The Red Buttes Wilderness includes land administered by three Ranger Districts on three National Forests (Applegate RD/Rogue River NF, Illinois Valley RD/Siskiyou NF, Oak Knoll RD/Klamath NF). Total approximate area for the Wilderness, based on the 1987 legal boundary description, is 20,323 acres (16,900 on the Rogue River National Forest, 3,413 acres on the Siskiyou National Forest, and 10 acres on the Klamath National Forest).

### GENERAL DESCRIPTION

The Red Buttes Wilderness, with elevations ranging from 2,800 to 6,739 feet above sea level, includes the jagged crest of the Siskiyou Mountains for about 15 miles along the divide between the Rogue/Klamath drainages. On the north, in the Rogue River watershed, the Wilderness consists of the upper reaches of the Steve Fork, Butte Fork and Middle Fork of the Applegate River, as well as the headwaters of the Sucker Creek drainage, a tributary of the Illinois River. On the south side of the divide, near the summit of Red Buttes, the Wilderness includes a very small portion of the Seiad Creek drainage, tributary to the Klamath River.

The Wilderness is characterized by steep ridges and mountains, and is dominated by Red Buttes (6,739 feet) and Kangaroo Mountain (6,694 feet), the highest peaks in the area. Although the rugged terrain was formed largely by uplift and gradual downcutting by streams, glacial erosion has occurred in the higher elevations. Botanically diverse, Red Buttes Wilderness contains old-growth forests, small meadows, extensive brushfields and rocky, open slopes -- all with an abundance of plant species that are endemic to the Siskiyou Mountains. There are several small lakes and ponds in the Wilderness.

Summers in the Red Buttes Wilderness tend to be warm and dry. Aside from occasional thunderstorms, little precipitation falls from June to October. Winters can produce a deep snow level along the north slope of the Siskiyou Crest (preventing easy access until May-June), but the lower elevations of the Wilderness in the Butte Fork Canyon rarely retain snow for more than a few days.

The "high use" recreation season typically begins in June, when the lake basins are accessible, and lasts into September. Most recreation activities (hiking, camping, fishing, horse packing) are concentrated in the two major lake basins (Tannen Lakes in the Sucker Creek drainage and Azalea/Lonesome Lakes in the upper Butte Fork Canyon). Due to close road access, upper Hello Canyon is popular for day hikes; the Pacific Crest National Scenic Trail also skirts this portion of the Wilderness. The Boundary Trail (following the crest of the Siskiyou), the Butte Fork Trail, the Steve Fork Trail and the Fir Glade Trail are the most popular routes to and through Red Buttes Wilderness.

## HISTORY

Historic uses of the Red Buttes Wilderness have included mining, stock grazing, hunting, fishing, hiking and camping. Recreational use of the present Red Buttes Wilderness probably increased after construction of Forest Service trails in the 1920s and again after World War II, with construction of mining and logging roads along the perimeter of the area, on-going into the 1970s.

Local Forest Service officials informally discussed the concept of "backcountry," wilderness, or primitive area status for Red Buttes as early as 1946. The area contained in the present Red Buttes Wilderness, because of its remoteness and its relatively uneconomic mineral and timber resources, remained unroaded. (Motorcycles were permitted in the area but, with the exception of the Tannen Lakes vicinity, motorcycling use was minor.) Trails of the vicinity were featured in backpacking publications, further drawing attention to the "unspoiled quality" of the area. During the late 1960s-early 1970s, public concern and controversy arose over the long-range management of Red Buttes. The Forest Service produced a "Decision for Butte Fork" public information brochure in 1970, detailing the agency's preliminary study of the area; wilderness propo-

nents responded a few years later with a brochure entitled "Red Buttes: Wilderness or Wasteland?" As a result of the Forest Service's Roadless Area Review and Evaluations (I and II) of the 1970s, Red Buttes (then referred to as the Kangaroo Roadless Area) was recommended for "release" to multiple use management, but the outcome in California was held up by a 1979 lawsuit (*State of California vs. Bergland*) which affected all National Forest roadless areas in the state. In 1984, Congress broke the legal logjam with the Oregon Wilderness Act (which designated as wilderness the Tannen Lakes/Sucker Creek area in Oregon) and the subsequent California Wilderness Act (designating the California lands, as well as amending the Oregon bill to include a small "connecting" parcel of Oregon land in the Steve Fork drainage).

## MANAGEMENT GOAL FOR THE RED BUTTES WILDERNESS

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Wilderness is a distinct resource to be managed for the use and enjoyment of the American people in such manner as will leave it unimpaired for future use and enjoyment as wilderness.

The Red Buttes Wilderness will be administered to minimize the impact of human use and technology upon the wilderness resource. In this area, humans will be temporary visitors. The forces of nature will dominate the landscape and human activity will be limited to that of the unobtrusive observer.

Management of the Red Buttes Wilderness will seek to minimize the physical and social impacts of use rather than use per se. Wilderness exemplifies freedom, but it is defined more by the absence of human impact than by an absence of human control. Management will seek to preserve spontaneity of use and as much freedom from regimentation as possible while preserving the naturalness of the wilderness resource, its opportunity for solitude or primitive recreation, and its scenic, scientific, educational, and historical values.

To the extent that the wilderness resource is not impaired, the Red Buttes Wilderness will be managed to provide opportunities for primitive types of recreation featuring solitude; physical and mental challenge; freedom from the intrusion of unnatural sights, sounds and odors; and the chance to travel

and camp without mechanized aids in an environment where visitors' successes and failures are directly dependent upon their abilities, knowledge and initiative.

The Red Buttes Wilderness will be managed to ensure protection of its scientific values (including natural resources and cultural resources) as well as to provide for appropriate research and dissemination of public information about those values.

## **WRS CLASSIFICATION AND CARRYING CAPACITY**

The Wilderness Resource Spectrum (WRS; formerly known as Wilderness Recreation Opportunity Spectrum or WROS) concept will be used to provide guidance for managing the physical/biological, social and managerial settings as per FSM 2320, Region 6 Supplement 81 (4/87). The WRS concept provides a quantifiable description of the kinds of resource and social conditions appropriate for a variety of opportunity classes within wilderness. The three WRS classes are Pristine, Primitive, and Semiprimitive. FSM 2320, R-6 Supp. 81, which describes the characteristics and standards for the different classes, is included in the appendix of this document.

### **WRS INVENTORY OF PRESENT CONDITION**

Using the WRS criteria, the present condition of the Red Buttes Wilderness was evaluated. The relatively high standard trail system, the narrow shape and ease of access, and the presence of high impact campsites at lakeshore margins are factors which contribute to Tannen Lakes/Sucker Creek basin, Middle Fork/Frog Pond area, lower Butte Fork Canyon, and upper Hello Canyon being inventoried as Semiprimitive. The remote, untrailed southeast portion of the Butte Fork Canyon (excluding upper Hello Canyon and the crest zone) and the Mount Emily/Fruit Mountain ridge system were inventoried as Pristine. The remainder of the Wilderness was classified as Primitive.

### **WRS MANAGEMENT DIRECTION**

FSM 2320, R-6 Supplement 81 (4/87) furnishes direction to provide for primitive settings and recreation experiences within the core areas of wilderness. Therefore, the desired future condition of the Red Buttes Wilderness is to provide a primitive experience by managing it as follows:

The area of the Fruit Mountain/Mount Emily ridge system (including as far west as Buck Peak) as well as most of the southeast portion of Butte Fork Canyon will be classified as Pristine WRS; no trails will be constructed or maintained in these areas and emphasis will be on providing opportunities for cross-country travel and maximum solitude.

The bulk of the interior will be classified as Primitive WRS. This includes the Azalea Lake/Cedar Basin/Lonesome Lake area, Steve Fork, Phantom Meadows/Fir Glade area, and the crest zone.

The Semiprimitive WRS class includes the entire Sucker Creek drainage, upper Hello Canyon, lower Butte Fork Canyon, and the Middle Fork/Frog Pond area. This class receives substantial day-use mixed with visitors traveling to and from the Wilderness interior. The acreage is as follows:

Pristine	6,365
Primitive	8,165
Semiprimitive	5,793

(See WRS map in Appendix)

### **CARRYING CAPACITY**

The maximum number of persons which a specific area can support for wilderness recreation depends on many factors. Some are physical characteristics of the land (vegetative communities present, percent slope, etc.); others relate to social factors (the types of uses and user behavior). Any estimate of numerical carrying capacity is purely theoretical, but it provides a basis for establishing guidelines. The Rogue River National Forest's FEIS Land and Resource Management Plan utilized the following information; however, on-the-ground management will use a modified "Limits of Acceptable Change"

## RED BUTTES WILDERNESS IMPLEMENTATION PLAN

process as the basis for actual management decisions.

A preliminary estimate of carrying capacity by WRS is indicated below. Carrying capacity estimates will

be evaluated and, if necessary, modified to reflect information gained from monitoring specific conditions within the Red Buttes Wilderness as outlined in FSM 2320, R-6 Supplement #81.

### WRS CARRYING CAPACITY

WRS Class	Acres	Carrying Capacity Coef. RVD/Acre/Yr*	Capacity RVD/Yr
Pristine	6,365	0.10	636
Primitive	8,165	0.25	2,041
Semiprimitive	5,793	0.35	2,027
TOTAL	20,323		4,704

\*165-day use season assumed; coefficients reflect constraints of steep terrain.

Based on the 1980 Resources Planning Act assessment, demand for primitive recreation experience in National Forests increased faster in the previous 30 years than any other recreational uses; however,

demographic factors may cause a relative "stabilizing" of user-demand during the next decade.

Projected Use:

1980 Use RVD	Multiplier**	2030 Use RVD
1,200	2.69	3,228

\*\* (Growth rate 2.0 percent per annum compounded for 50 years [1980-2030] = 2.69)

Demand for the area by the year 2030 will not exceed theoretical capacity. However, use is not evenly distributed. Use in some of the more popular areas may already be above theoretical capacity. Monitoring (using the criteria listed in FSM 2320, R-6 Supp. 81) will help determine if the desirable conditions for a given area are being degraded, maintained or being improved.

## MANAGEMENT OBJECTIVES, SITUATIONS AND DIRECTION

### ADMINISTRATION

#### Management Objectives

The objectives are: (a) to preserve the integrity of the wilderness resource, (b) to provide uniform and consistent administration by all Ranger Districts, (c) to conduct necessary administrative activities most protective of the wilderness resource with minimal impact on and from adjacent non-wilderness lands, and (d) to inventory (and in particular to gather base-line scientific data about) the various re-

sources and natural systems of the Red Buttes Wilderness.

### **Current Situation**

The Red Buttes Wilderness is jointly administered by the Rogue River and Siskiyou National Forests. It lies within the jurisdiction of three Ranger Districts: the Applegate Ranger District of the Rogue River National Forest, the Illinois Valley Ranger District of the Siskiyou National Forest, and the Oak Knoll Ranger District of the Klamath National Forest. The Rogue River National Forest is designated as the lead Forest to coordinate the preparation of management plans and activities. Administrative responsibility for on-the-ground management of the area is shared between the Applegate Ranger District and the Illinois Valley Ranger District (the Oak Knoll Ranger District has transferred on-the-ground administrative responsibilities for its 10-acre portion of the Wilderness to the Applegate Ranger District).

### **Management Direction**

Ranger District annual implementation schedules/operating plans will be prepared, stating specific local actions needed to achieve operational objectives and to implement management policies and actions stated in this plan.

Key personnel from the Rogue River, Siskiyou and Klamath National Forests will meet as needed to ensure uniform management and coordinate their respective operating plans and other management activities, as well as to ensure that base-line inventories and on-going study of various resources (e.g., soils, air, water, vegetation, wildlife, archaeology) are conducted as an integral part of wilderness management.

Coordinated wilderness budget planning will be done to assure that each Ranger District's wilderness management needs are recognized.

Well-trained and well-informed wilderness rangers will be the key link in management of Red Buttes Wilderness. Duties will include trail maintenance, campsite rehabilitation, campsite LAC inventory and public contact/education; consistent weekend presence by ranger is crucial during high-use period. Emphasis will be given to (a) maintaining experienced, motivated personnel as wilderness rangers, (b) providing rangers with Level II law enforcement

training, and (c) in so far as possible, training/using rangers to help gather systematic scientific data on wilderness resources (e.g., periodic water quality sampling, air quality monitoring, range survey, fuel loading inventory, archaeological reconnaissance, botanical surveys, etc.).

All administrative activity, including establishment of seasonal administrative site (e.g., proposed wilderness ranger's tool cache/camp at "Grouse Camp" near Cedar Basin), will be conducted to minimize the impacts on the wilderness environment and the experience of users. All non-routine projects will be described in the appropriate Ranger District's annual action plan.

To promote an understanding of the purpose of wilderness, a close working relationship will be maintained with all wilderness user groups and appropriate research institutions, as well as all federal, state, and county agencies that have jurisdiction over or influence the use of the Wilderness (e.g., U.S. Fish and Wildlife Service, Oregon Department of Environmental Quality, California State Water Quality and Air Resources Control Boards, Oregon Department of Fish and Wildlife, California Department of Fish and Game, the Oregon State Police, the California Highway Patrol, the Josephine and Siskiyou County Sheriffs' Departments).

## **TRAILS AND TRAVEL**

### **Management Objectives**

The management objectives are: (a) to provide a range of challenges to Wilderness users through a spectrum of access opportunities, including cross-country travel and trails of varying difficulty for horse and foot travel; and (b) to minimize physical and visual impacts upon the land, conflicts between users and concentrations of use harmful to the wilderness resource.

### **Current Situation**

The periphery of the Wilderness is accessed by Forest Service roads. In several places (e.g., Middle Fork Canyon and elsewhere), the wilderness boundary is adjacent to a road. Based on the final, legal wilderness boundary description issued in 1987, in these areas the boundary varies from 33 feet to 300 feet from the nearest edge of the road

prism (top-of-the-cut or toe-of-the-fill); see 1987 boundary description for site-specific information. Upper Hello Canyon was accessed by a low standard mining road which remains in place. The road has been barricaded at the Wilderness boundary.

Most of the Wilderness is served by a well-distributed, relatively high-standard trail system. Currently, there are approximately 43 miles of maintained, active trails within the area. All trails are maintained to level II with the exception of the Pacific Crest Trail (adjacent to the Wilderness), which is maintained to level III (FSH 2309.18 Trails Management Handbook, 6/85).

Some pieces of the trail system have been recently completed or are still proposed. The Forest Service has completed a relocated section of the Boundary Trail from Rattlesnake Mountain to Lonesome Lake. This piece is located on the south side of the divide (outside the Wilderness) and eliminates the need to use the old trail through Sugar Pine Camp. The new trail to Fir Glade (most of it outside of the Wilderness) utilizes portions of an old Forest Service telephone line maintenance trail.

The specific WRS trails management guidelines for the Wilderness are as follows:

**Pristine WRS:** No trail maintenance or new construction will occur in this area (see WRS map). A major purpose of this WRS class is to provide and maintain opportunities for cross-country, "trail-less" travel.

**Primitive WRS:** Little or no new trail construction except to resolve recreation and wilderness management problems. Trails will generally receive level II maintenance. They will accommodate light to moderate travel. Routes will be maintained to protect resources and the investment and to provide challenge.

**Semiprimitive WRS:** New construction will be limited to those situations where short lengths are needed to tie existing trails and trailheads together. New trails will be constructed as linear recreation facilities to the extent compatible with the wilderness resource.

## Management Direction

Red Buttes Wilderness probably is sufficiently trailed for current and projected needs; new trail construction (as opposed to existing trail relocation) will be done only after a thorough analysis of the potential social consequences (e.g., overcrowding at lakes) of the proposed new trail. In general, trail-heads adjacent to or accessing the Wilderness should be "low development" sites with adequate parking, informational signing, etc.; corrals and other facilities should be constructed only if wilderness values are not adversely affected and when a thorough analysis has demonstrated a real need for the facility.

New trails will be constructed to standards compatible with those of existing trails with which they tie. Trails will generally receive level II maintenance. They will accommodate heavy use through most of the use period. Routes will only modify natural conditions to the extent necessary to protect the environment and to provide for safe use by a visitor with backcountry experience and average physical ability.

Keep the road which enters the Wilderness in upper Hello Canyon blocked. The Lily Pad Lake Road from Cook and Green Pass may remain open as far as Bee Camp, closing it to traffic between there and Lily Pad Lake. Maintenance of the open portion will be at a level only to prevent resource damage and to provide access to high clearance vehicles.

Maintain Phantom Meadows Trail (#955A) to most difficult standard to provide challenge for users consistent with Primitive WRS class. Allow tread to become narrower and windfalls to remain in place. Halt maintenance of unnumbered spur trail off Steve Fork Trail that lead to Steve Lake; allow tread to revert to natural condition. (Objective: preserve Phantom Meadows as a pristine, hiker "discovery" spot on outer fringe of Wilderness.)

Maintain all other trails to level II Wilderness standards to accommodate use and prevent damage to soils and water.

Monitor trail use damage. When damage occurs, either reconstruct and maintain the trail to correct the damage or prohibit the types of use causing the damage. Popular trail segments exhibiting drainage problems and consequent damage (e.g., trail be-

tween Azalea Lake and Lonesome Lake) should have highest priority for reconstruction.

Continue to remove trail structures (e.g., culverts, bridges) not essential for visitor safety or resource protection. (Steve Fork Trail bridge, for example, has been removed and replaced with a natural-rock stream crossing.)

All trails leading into Red Buttes Wilderness will be identified as to which Ranger District will have maintenance responsibilities; in some agreed-upon cases and after review by both parties, maintenance may be done by District that does not have jurisdiction over the land involved.

De-activate Sweaty Gap Trail (Pristine WRS); permit trail to be used as a "way," but should not be maintained. (Replace Sweaty Gap Trailhead signs with signs indicating upper trailhead of Middle Fork Trail.)

Do not develop "tie-through" trails from Middle Fork to upper Butte Fork basin (e.g., from Frog Pond Trail to Butte Fork); this area is classed as Pristine WRS class and should remain trailless for maximum cross-country experience.

Allow trail prism of abandoned trails to revert to a natural condition; where resource damage is occurring, obliterate trail segment and/or restore to natural condition as needed to halt damage.

Use of motorized/mechanized equipment for trail work will conform to FSM 2326.1 and FSH 2309.19.

Before a proposed trail relocation project is approved, the following criteria will be met:

The "old" trail presents unacceptable resource damage or safety hazards, and short, local re-routing will not eliminate the problem(s). Steepness or user convenience are not acceptable rationales for relocation.

The old trail can be successfully closed and no attractions along the route will cause visitors to continue using it.

A plan for obliteration or restoration of the old trail has been prepared; funds for this work will be allocated as part of the relocation project and the work will be accomplished within no

more than one year after the new construction has been completed.

The relocated route (1) generally avoids lakeshores, streamsides, potential or existing campsites, "sensitive" (soils, plants, etc.) areas and (2) does not intrude into Pristine WRS class.

Some Wilderness trails are or may be identified as "primitive, challenging" trails; the proposed relocation should not upgrade such a trail into a high-standard, even-grade, highly-visible trail.

Bridges and culverts should be used only when no other, natural crossing is feasible. If gravel is needed, it should be taken from a nearby (i.e., "native" rock) borrow pit that is out-of-sight of trails; the source area should be rehabilitated immediately.

The proposed relocation should incorporate as much diversity in grade as the soil can tolerate, consistent with anticipated use (i.e., hiker-only trails can be steeper than those used by stock).

Environmental analysis has been documented and line officer approval has been given.

Trail blazing will conform to Wilderness standards; the red-paint blazing along Butte Fork Trail should be removed (i.e., new blazing over the painted scars or "camouflaged" by appropriate colored paint as part of on-going trail maintenance program).

## SIGNING

### Management Objective

The management objective is to provide signs only where necessary to protect the wilderness resource and for basic visitor orientation.

### Current Situation

The majority of the signs within the Wilderness pre-date wilderness designation and do not meet new standards; the remainder are standard design, white oak, routed signs which have no destination mileages and have no more than three destinations per sign. Posts where needed are round native material. Most of the signs are in good condition.

Standard oak Wilderness entry signs have been installed at most entry points.

### Management Direction

All signing will conform to Region Six standards (FSM 7164, R-6 Supp. 32). As old signs need to be replaced, replace with signs meeting FSM standards. Wilderness boundary signing/markings, where needed, will comply, as far as possible, with the visual objectives of wilderness.

All Districts will continue to coordinate sign maintenance and replacement needs in the areas on District boundaries. All Districts will sign to the same standards and design.

Administrative or regulatory signing will be used only when absolutely necessary and will be of the minimum size feasible.

Signing will **not** be used: (a) in Pristine WRS areas; (b) on non-system trails; (c) to identify natural features; (d) to give distances; or (e) to provide on-site interpretation. However, the Red Buttes area has some interesting history, and interpretive signs can be placed at trailheads and other locations outside of the wilderness boundary. (The following locations are proposed for interpretive signing: Fir Glade trailhead [old FS phone line, Fir Glade G.S. history, Culy Cabin], Boundary Trail vista [major viewpoint of Butte Fork Canyon and various peaks], Kubli Mine [viewpoint above Hello Canyon at end of Lily Pad Road, providing history of chrome mine and local geology], Frog Pond trailhead [history of unique cabin and hermit John Knox McCloy], Butte Fork trailhead [general "wilderness message" plus information on Butte Fork Slide, Rattlesnake Fire of 1987, Tool House and Goslinger Grave].)

Put wilderness entry signs at all trail entry locations not yet signed (e.g., at Steve Fork Trailhead, Frog Pond Trailhead, Shoofly Trailhead); use "F.S. shield" brand to give agency identification on all entry signs.

Boundary Trail **within** the Wilderness is no longer a National Recreation Trail; delete these sections from NRT inventory and remove NRT symbols from within Wilderness.

Maintain bulletin boards with wilderness regulations and other information pertinent to wilderness at all

major trail heads. Post all trail heads with "no motorized use" and "no bicycle" posters or symbols. Lead District will coordinate the information to be displayed, to ensure uniformity at all sites.

## RECREATION

### Management Objective

The objective is to provide a spectrum of opportunities for primitive types of recreation featuring a natural Wilderness environment, solitude, physical and mental challenge, and inspiration consistent with preservation of Wilderness values. In situations that present potential or actual recreational conflict with Wilderness values, Wilderness values shall take precedence.

### Current Situation

Red Buttes Wilderness is managed to provide a wide range of primitive recreational experiences which include (but are not limited to) day hiking, backpacking, camping, hunting, horseback riding, fishing, and other non-motorized/non-mechanical activities by individuals or appropriately-sized groups.

According to current RIM data, the area receives approximately 1,200 recreation visitor days per year. Wilderness guard reports for 1987 indicate that use may be substantially higher.

Areas of most concentrated use are in the Tannen Lakes, Azalea Lake, Lonesome Lake basins and in upper Hello Canyon. This use is concentrated on weekends and holidays from late June through October, although lower elevation areas have a use-season that begins in mid-May (with some year-round trail-use in the lower Butte Fork drainage). Damage to vegetation due to soil compaction and campsite deterioration has occurred in the heavy-use areas. More day-use is occurring, particularly in the upper Hello Canyon, lower Butte Fork Canyon and Middle Fork Canyon areas.

One special use permit for packing and guiding (Divide Wilderness) was issued in 1984 within the Wilderness. Others have been issued in the past but were never used by the permittees. To-date, the availability of other areas, combined with the small size of Red Buttes Wilderness and its easy access,



has not made the area particularly attractive to outfitter/guide activities, but this could change with increased hunting demand.

### Management Direction

When conflicts develop, implement management techniques to achieve target WRS classes. Monitor use throughout the area to determine if management is achieving results.

Pay particular attention to areas that are already heavily used. Use FSM 2320, R-6 Supp. 81 (6/87) to provide a list of indicators to monitor.

Manage to the designated WRS classes using the criteria in FSM 2320, R-6 Supp. 81. Utilize the "Limits of Acceptable Change" (LAC) system for establishing acceptable and appropriate resource, social and managerial conditions. The LAC system represents a reformulation of the recreational carrying capacity concept, with the primary emphasis on the conditions desired in the area rather than on "how much use" an area can tolerate.

If LAC system analysis of the area indicates unacceptable impacts on wilderness resources are occurring, the following options should be executed in the order listed:

Seek information and input from full spectrum of wilderness users, particularly regarding: (1) their perceptions of user impacts/conflicts and (2) their ability to help mitigate impacts or reduce conflicts.

Disseminate information through receptionists, visitor contacts, and the media if necessary, to describe the over-use situation and discourage and redirect use. This may involve advertisement of little-used areas or areas outside the Wilderness.

Design and manage roads, trails, campsites and trailheads so as to alter use patterns.

Apply regulatory controls (i.e., further limit party size, guide use, implement permit system, etc.) as necessary and with a coordinated public information program.

Limit party size to 8 people (hikers or stock users) and up to 12 head of stock per group. Any numbers

in excess of these will require obtaining written permission from the Ranger District(s) involved prior to the trip. The "large group" Wilderness permit will give numbers of people/stock, travel routes/campsite destinations, and dates for each trip. (Large group permits should only be given for locations that can handle the use without causing physical impacts in excess of LAC standards.)

Retain 100-foot minimum distance from lakes and streams for camping (as opposed to Supplement 81 guidelines for 200-foot minimum campsite distance) in order to confine site degradation; use 200-foot minimum distance for stock grazing/tethering. (Note: 100-foot minimum for camping is asked--instead of 200-foot minimum, as called for in 2360, R-6 Supp. 81--because there is not adequate campsite potential at any of the lakes beyond 100-200' from lakeshore.)

Areas of severe, human-caused erosion/compaction will be closed/rehabilitated with native species of vegetation. Surface water runoff that collects on trails or in campsites will be controlled to prevent accelerated erosion or other impacts.

Implement and monitor effectiveness of hiker/horse-group campsite "zoning" concept at Azalea Lake, as formulated during 1987 public meeting: north side would be for hiker camps, east side for horse groups, south/west side areas (and whole perimeter of lake within 100' of lake) would be closed to camping. Educate users about zoning through wilderness ranger contacts, correspondence and wilderness map.

Develop (with a "light touch") Azalea Lake perimeter trail at 100-foot distance from lakeshore; trail will serve to identify areas where camping is/is not allowed.

Develop "designated campsites" at Lonesome Lake and eliminate camping along lakeshore; regularly reassess Lonesome Lake for day-use only.

Update RIM use-data to include RVD estimates based on annual wilderness ranger records and other data.

Study Azalea Lake and Tannen Lakes for determination of long-term capacity of people/stock and periodically re-evaluate current recreation management direction.

Relative to *outfitter guides*, a standard maximum of two permits will be issued for Red Buttes, but with the possibility of additional special use permits on a case-by-case basis. Outfitter guides will submit an annual operating plan to the appropriate Ranger District(s) for review, revision, and approval; these plans will detail maximum number of clients/stock, location of camp sites, timing, routes of travel, and other information pertinent to wilderness management.

No outfitter guide caches will be permitted anywhere in the Wilderness.

Outfitter guide campsites will be requested through the permittee's annual operating plan; approved campsite locations will be designated by the Forest Service, with emphasis on locating weekend camps out of high-use areas.

Through the approval of an annual operating plan, permittees may be required to pack sufficient feed to sustain their stock for all or part of the trip.

The same group-size standards and camping/stock-control restrictions apply to outfitter guides as to other wilderness users, with the potential for further restrictions, if necessary, on a case-by-case basis.

Guide permit applications and annual operating plans should be submitted by March 1 or 30 days prior to the anticipated period of use.

Outfitter guide permits or operating plans involving dog-assisted hunting or pursuit in the Wilderness will be reviewed by the District Ranger(s) on a case-by-case basis in order to assure that the timing and area is compatible with other wilderness uses. In cooperation with State game authorities, District Ranger can restrict such activity from high-use areas during high-use periods due to conflict with the solitude objective of wilderness management.

Prohibit competitive contest events, group demonstrations, ceremonies, and other similar events inside the Wilderness.

Continue to monitor noise caused by low-flying jet aircraft and cooperate with Regional and Washington Office efforts to resolve this problem. District

Rangers will contact appropriate personnel at Kingsley Field, Jackson County Airport, and other jet airfields in the vicinity in order (a) to review FAA regulations relative to restrictions on wilderness overflights and (b) to facilitate the transmittal of relevant information to pilots.

## STRUCTURES AND OTHER FACILITIES

### Management Objective

The objective is to maintain the Red Buttes Wilderness free of facilities and structures except those necessary to protect the wilderness resource or as permitted by section 4(d) of the Wilderness Act of 1964. Related management objectives/direction are set forth elsewhere in this plan under the appropriate resource discussions.

### Current Situation

The Red Buttes Wilderness has very few structures or other facilities. Sucker Creek Shelter, a shake-over-pole, "Adirondack-style" camp shelter (thought to have been built by the Civilian Conservation Corps in the 1930s) is still used by campers. Butte Fork Toolhouse, a storage shed and trail shelter dating from the 1920s, is no longer used by the Forest Service. Fir Glade Guard Station (built ca. 1930) has not been used for administrative purposes since the 1960s. Less than half-a-dozen miners' cabins (most of them now collapsed) are known to be located in the Wilderness. No active water-diversion facilities (dams, ditches, flumes, etc.) exist within the Wilderness. A log-stringer bridge across upper Tannen Creek, in poor condition, remains in use. Picnic tables at Tannen Lake were removed in the 1980s. "Wallowa type" toilet structures remain at Azalea Lake; a similar structure at Tannen Lake is scheduled for removal by 1989.

### Management Direction

In general, structures or other improvements will be allowed only if and when the facility is needed to protect the wilderness resource.

No roads, powerlines, telephone lines, water-flow maintenance structures or other improvements will be permitted except as authorized under section 4(d) of the Wilderness Act of 1964.

If any facilities are installed, they will, insofar as it is feasible, utilize native materials and will be designed to harmonize with the surrounding environment. A seasonal camp/tool cache for use by the Wilderness guard will be permitted so long as (a) the site is secluded away from high use areas/trails, and (b) no permanent-type improvements/structures are built.

All fire rings within a 100-foot perimeter of any lake will be removed. Fire rings in campsites, located outside of the 100-foot wide lakeshore perimeter, where regular use occurs will be retained in order to contain the distribution of visitors and to avoid the proliferation of campsites. Encourage, through public contact/education, use of "backpacker" stoves by all visitors.

All other improvised facilities constructed by visitors (corrals, privies, tables, shelves, lean-to's, etc.) will be removed on a regular basis as soon as possible.

The two toilets at Azalea Lake have been removed; another at Tannen Lakes will be removed; fill-in old holes. Periodically reassess the need for such facilities at these relatively high-use areas, with replacement done only if resource damage is occurring (i.e., not replaced simply for user convenience).

All currently existing structures will be documented and evaluated for their potential historic significance as part of the "Section 106 process" under 36 CFR 800. Unless they pose a definite safety hazard, abandoned pre-1950s structures will be allowed to deteriorate naturally. "Removal" of a safety hazard can include simply collapsing a partially-collapsed structure so that no danger exists. Burning, although an option, is not desirable from a cultural resource standpoint.

## **RANGE AND LIVESTOCK USE**

### **Management Objective**

The objective is to allow utilization of forage by commercial livestock and recreational pack-and-saddle stock in a manner that it is compatible with wilderness values and as directed by Congressional guidelines and Forest Service policy.

### **Current Situation**

Portions of three active cattle grazing allotments extend into the Red Buttes Wilderness. The East Fork Indian Creek Allotment (Illinois Valley RD) formerly included about 2,000 acres within the Wilderness, with a total of 144 head; this allotment was terminated in 1988 for non-use. The Carberry Allotment (Applegate RD) includes 1,600 acres within the Wilderness, of which about 300 acres are actually used/useable, with a total of 80 head.

The Upper Big Applegate Allotment (Applegate RD) includes 15,300 acres within the Wilderness, of which about 500 acres are used/usable, with a total of 167 head. The Seiad/Johnny Allotment (Oak Knoll RD) includes the 10 acres of the Klamath NF on the south slope of Red Buttes that lie within the Wilderness; however, this rocky area is non-range land, and few if any cattle utilize this small area. Under the Wilderness Act, no new grazing will be allowed in Red Buttes Wilderness.

For the most part, conflicts between grazing and other uses have been minor. In upper Hello Canyon cattle from the Klamath N.F. range allotment drift over the divide from Lily Pad Lake into the Wilderness, causing damage to soil, vegetation and visual quality in upper Hello Canyon; this impact has been concentrated in the moist meadows but extends to Towhead Lake. The same impact has occurred in Figurehead Meadow, adjacent to Azalea Lake, due to grazing/improper tethering of recreational pack-stock.

Some damage to soil, vegetation and visual quality has occurred in localized areas of the Wilderness due to inappropriate methods of tethering or grazing recreational livestock (e.g., Figurehead Meadow, adjacent to Azalea Lake). (See Section D of this plan for group-size and recreational stock-use standards.)

### **Management Direction**

Provide for on-going inventory/analysis of range vegetation, with emphasis on base-line studies of range condition and species composition. When appropriate, base range condition on the standards in the Range Analysis Handbook (FSH 2209.21).

Range facilities (corrals, etc.) will not be constructed unless absolutely necessary for protection of the

wilderness resource. Allotment management plans will address grazing facilities, as well as number of head, season of use, location of use, and other aspects relevant to wilderness management (See FSM 2323 and FSM 2309.12; 22.21.)

There will be no curtailment of existing grazing allotments in Red Buttes Wilderness simply because the area is designated as wilderness. No new allotments or increases in existing allotments will be established. If a grazing permit ceases due to non-use or other reasons and the allotment remains unused for five years or more, the wilderness portion can be excluded from the allotment boundaries of any new permits. If sufficient opportunities develop for improved/increased allotment grazing outside of the Wilderness, the wilderness portion of the allotment may, through agreement with the permittee, be removed.

There is no historically established (pre-1984) use of motorized equipment for range management purposes in Red Buttes Wilderness, and there is no need to approve such uses except in emergency situations (FSM 2323.22); range allotment plans will reflect this direction, and will also address proper placement of salt blocks.

If conflicts develop between permitted, historically-established commercial grazing and the wilderness resource, the goal will be to resolve the conflict in favor of the wilderness resource, but only insofar as is permitted by the limitations imposed by legislation and regulations pertaining to grazing activities in the Wilderness (see FSM 2323.22).

Grazing problems will be reported to the appropriate District Ranger(s). The Ranger will work with permittees to identify problems within the Wilderness and to cooperate in their resolution.

Pack-and-saddle stock must not be grazed/tethered within 200 feet of lakes/ponds or streams; stock can be briefly watered at stream crossings along trails.

Available forage will be used according to the following order of priority: wildlife, permitted livestock, recreation livestock, and administrative livestock.

Forage for pack stock is quite limited within the Wilderness. The use of **pelletized feed** will be encouraged for individual use. It will be generally re-

quired for commercial (outfitter guide) or organized group use. Non-native plant species will not be deliberately introduced through livestock use. The possibility will be minimized by prohibiting the use of hay and unprocessed grain.

Because the few forage areas generally are not dry enough or sufficiently grown for stock use until the first of August, grazing of stock prior to this date will be discouraged. This information will be included in the trailhead bulletin display.

Tethering of stock directly to trees will be discouraged through map information, trailhead bulletin displays, wilderness rangers, etc. Hobbling, staking, or loose "high-lining" between trees will be encouraged.

Unobtrusive signing to wilderness standards may be used along trails in order to direct grazing of pack-and-saddle stock to acceptable areas away from lakeshores (e.g., the "Figurehead Meadow" area south of Azalea Lake). When feed areas have received optimum use, they will be posted to notify stock users that no further grazing at that site is permitted.

When needed, use fencing (outside of the Wilderness) to prevent livestock-caused damage to trails accessing the Wilderness (e.g., Fir Glade Trail from trailhead to Fir Glade).

## FISH AND WILDLIFE

### Management Objectives

The management objectives are: (a) to provide habitat most conducive to a natural distribution and abundance of native species of wildlife by allowing natural ecological processes to shape habitat and interactions among species, (b) to cooperate with state and federal fish and wildlife managers so as to meet their goals and objectives in a manner consistent with the preservation of wilderness values, as per section 4(d8) of the Wilderness Act, and (c) to protect habitat critical to survival of threatened or endangered species.

### Current Situation

Butte Fork and its lower tributaries are the only stream fisheries of any potential consequence with-

in Red Buttes Wilderness; however, these streams have not been stocked in the last 15 years.

Several of the lakes were probably first stocked by Forest Service packers in the 1930s-40s. The Oregon Department of Fish and Wildlife (ODFW) began aerial stocking of the Tannen Lakes with rainbow and eastern brook trout in about 1960. Around 1980, the ODFW went from an annual to an alternate-year schedule, and from fixed-wing to helicopter stocking. The California Department of Fish and Game (CDFG) began regular stocking (brook trout) of Azalea Lake, Lonesome Lake and others in the late 1960s and early 1970s; this has continued on an alternate-year basis with fixed-wing aircraft. Stocking of the Wilderness lakes with 1,000-2,000 fry typically occurs in June or early July. Current plans call for continuing existing fish stocking practices. (The two state agencies maintain stocking records and can provide additional information; the contact agencies are: ODFW, Medford Office and CDFG, Yreka Office.) Fishing pressure at the more popular lakes has contributed to the devegetation of lakeshore zones.

Wildlife species are typical of those found in high-elevation forests of northwestern California and adjacent Oregon. Many of the mountain meadows are used by blacktail deer as summer range. (Roosevelt elk and small populations of bighorn sheep, present in early historic times, have not been found in the area for many years; however, elk have been reported recently for the Siskiyou Mountains north of Happy Camp.) Other large mammals include black bear, mountain lion, bobcat and coyote; a variety of smaller mammals, including ring-tail cat, marmot, woodrat and other rodents. Rough-skinned newts and other amphibians inhabit the lakes; various reptiles (including rattlesnake, alligator lizard, etc.) occur in many portions of the Wilderness.

Some of the most commonly seen bird species include dark-eyed junco, common raven, Stellar's jay, scrub jay and red-tailed hawk. Ruffed grouse, blue grouse, mountain quail, and band-tailed pigeon, are the only game bird inhabitants although migratory waterfowl may be seen occasionally. Several spotted owl habitat areas (SOHAs) are located within or partially within the Red Buttes Wilderness. Peregrine falcon habitat exists in the Wilderness.

Hunting is allowed in accordance with state regulations. A moderate amount of deer hunting occurs on

the fringes of the Wilderness. Bear hunting is popular in the vicinity (historically, Siskiyou County has accounted for the highest bear "take" in California).

### **Management Direction**

Fish stocking will be limited to those waters and to those methods used historically. This includes the use of aircraft, as per direction in FSM 2323.34b. Towhead and Moraine Lakes have not been regularly stocked in the past; due to the fragile lakeshore environment (impact from fishing/camping) at these two small lakes, they probably should not be stocked in the future. Work with California fish and game authorities on this situation.

Numbers of fish and timing/frequency of stocking can be adjusted according to use, if consistent with other resource objectives.

Fish stocking level adjustments will be considered as a potential method of controlling use at Lonesome Lake or other places, if monitoring indicates unacceptable resource impacts are occurring.

Native animal species will be maintained; no new, non-native species will be introduced. Threatened or endangered species will receive special emphasis. Areas of peregrine falcon habitat will be monitored and, if need be, will be protected from visitors or management activities; a falcon habitat plan will be needed.

On-going communication between the Forest Service and the State game agencies will be necessary in order to exchange information for the development of hunting seasons and numbers of permits which may affect wilderness use. (See also Section D of this plan, management direction item #12f.)

If animal control is necessary (e.g., to protect threatened or endangered species or to prevent serious losses of domestic livestock), Regional Forester approval will be required on a case-by-case basis. Cooperate with other agencies (FSM 2610) using methods directed at the offending animal (but which present the least impact to wilderness values, other wildlife, and visitors).

Discarding of food or garbage that tends to alter the natural feeding behavior of wildlife will be discouraged through visitor education or regulation.

Based on an approved Wilderness Fire Management plan, fire will play a more natural role in maintaining wildlife habitat diversity (particularly those eco-systems which are fire-dependent) in order to ensure a natural abundance and distribution of native species (See Section N).

Provide for on-going zoological surveys of the Wilderness, with emphasis on (a) documentation of rare, sensitive, or "wilderness-dependent" species and (b) base-line studies of species population/distribution and habitat requirements.

## **WATER**

### **Management Objective**

The objective is to preserve lakes, ponds, springs and streams in a natural condition, with minimal modification or human-caused contamination.

### **Current Situation**

Red Buttes Wilderness contains about 15 lakes or smaller bodies of water. It comprises the headwaters of the Middle Fork and the Butte Fork of the Applegate as well as the upper watersheds of other important streams in the Applegate, Illinois and Klamath Rivers systems.

No power withdrawals exist within the Wilderness. Water flowing from Red Buttes Wilderness is used for irrigation, livestock, recreation, and other uses.

No serious, directly human-caused water quality problems have been reported. No bacteriological testing has been done but overall, water quality is believed to be high. Although no cases of *Giardia* contamination in Red Buttes have been documented, its occurrence in the area is likely.

Water yields from the area will remain essentially the same over the long term; present uses of the water will continue. Waters may become more polluted due to atmospheric pollutants or direct human use.

### **Management Direction**

As called for by Clean Water Act of 1970, the Water Quality Act of 1987, and the California Water Quality Standards, water management in Red Buttes Wilderness will strive for non-degradation of quality.

Except as provided for in section 4(d)(4) of the Wilderness Act, watersheds will not be altered or managed to provide for increased water quantity, quality or timing of discharge.

Provide for on-going inventory of hydrological data as a regular part of wilderness management tasks in order to help identify base-line parameters of water quality in Red Buttes Wilderness.

## **VEGETATION**

### **Management Objectives**

The objectives are: (a) to maintain the system of natural processes that governs the distribution of plant communities, (b) to ensure that natural biotic communities remain undisturbed except by those natural processes, and (c) to protect threatened/endangered and sensitive plant species.

### **Current Situation**

Terrestrial vegetation in Red Buttes Wilderness occurs in three major forested zones, with numerous specific plant communities endemic to meadows, bogs, brushfields, serpentine soils and other areas. (The Wilderness consists of a complex mosaic of over a dozen specific plant associations which have been identified by Forest Service ecologists; the broader "zone" concept is best used for this plan's general discussion.) The lowest elevation zone, found largely in the Butte Fork Canyon, is the mixed conifer/mixed evergreen zone, which contains Douglas-fir, ponderosa pine, sugar pine, Jeffrey pine, incense-cedar, canyon live oak, Pacific madrone and chinquapin. The lower Butte Fork Canyon is notable for its extensive stand of old-growth pine and fir. The next zone consists of the true fir zone, with white fir and noble fir/Shasta red fir predominating. The highest and most restricted forest zone in the Red Buttes Wilderness is the sub-alpine zone, dominated by mountain hemlock and western white pine. The lakes, ponds, bogs, and streams of the Wilderness support an aquatic flora that is very little known at this time.

Along with a few other sections of the Klamath Mountains, both the forested and the "open" areas in the Wilderness are noted for their botanical richness, containing one of the most diverse floras on the North American continent. More than half of the

sensitive species known to occur in the Rogue River National Forest are found within the Red Butte Wilderness. Unusual species include small plants (e.g., ferns and the Siskiyou lewisia), endemic shrub oaks (e.g., Sadler oak, Brewer oak) and trees such as Brewer spruce. The Wilderness contains a rich variety of sclerophyllous ("hard-leaf") shrubs which grow in the dense brushfields and as the understory in forested areas. Various places in/near Red Buttes Wilderness are popular locales for "botanizing" field trips by local educational and environmental groups.

Most of the Wilderness vegetation is in a natural condition, unaffected by human activity (except for the exclusion of wildfire since about 1910). However, natural vegetative cover has been altered significantly at lakeshores, campsites, grazing areas and along segments of the trail system. Also apparent is damage to trees, both by cutting/chopping for firewood and by inappropriate stock-tethering methods.

No currently listed threatened or endangered plant species are known for the Red Buttes Wilderness. Several "sensitive" species are documented for the Wilderness.

### **Management Direction**

Cooperate with Southern Oregon State College, Oregon and California Native Plant Societies, and other interested parties in identification of important botanical values. Provide for on-going botanical (terrestrial and aquatic) surveys of the Wilderness, with emphasis on (a) documentation of rare or sensitive species, (b) alteration of lakeshore vegetation or other plant communities, (c) base-line studies of plant associations' distribution and characteristics, and (d) determination of the prehistoric role of fire in creating/maintaining various plant associations.

Protect sensitive species. Projects such as trail construction and campsite/grazing area designations will provide for preservation of sensitive plant species.

Non-native plant species will not be deliberately introduced. The possibility of accidental introduction will be minimized by prohibiting the use of hay and unprocessed grain as supplemental feed and by encouraging the use of processed, weed-free feeds (i.e., pelletized rations; see Section F of the plan,

item 9). Artificial seeding of non-native plants after fires will not occur.

Rehabilitate (naturally or with native species from local populations) areas of excessive damage to vegetation resulting from over-use (e.g., transplant beargrass "plugs" to barren campsites within 100 feet of lakeshores).

## **GEOLOGY AND SOILS**

### **Management Objective**

The management objectives are to inventory/analyze the geological and soil formation processes present in the Red Buttes Wilderness and to interpret this information to interested segments of the public.

### **Current Situation**

Red Buttes Wilderness is located within the Siskiyou Mountains portion of the Klamath Mountains Geologic Province. In terms of regional geologic time, the rocks of the Red Buttes Wilderness are quite ancient, the oldest having been formed as part of the Klamath Mountains' initial submarine depositional sequence during upper Paleozoic/lower Mesozoic times (ca. 400 million to 180 million years ago). Most of the Wilderness is made of these metamorphic rocks, which include quartzite, schist, amphibolite, gneiss, and various meta-volcanics. Red Buttes takes its name from an extensive body of Jurassic (ca. 180-130 million years old) ultramafic rocks (including dunite, peridotite, serpentine and pyroxenite) which encompasses the Siskiyou Crest from Cook and Green Pass west to Kangaroo Mountain; this area is characterized by sparse vegetation on rock which weathers to an orange-to-reddish color. Several smaller ultramafic bodies occur elsewhere within the Wilderness. In addition, a small intrusive body of quartz diorite is located on the south slope of Fruit Mountain, and a lenses of pre-Cretaceous limestone/marble are exposed in upper Hello Canyon between Red Buttes and Kangaroo Mountains well as in the Marble Gulch area.

Uplift of the Klamath Mountains occurred during the Cenozoic Era; millions of years of erosion have carved the deep canyons and sharp ridges visible today. During the Pleistocene, or "Ice Age" (about one million to 12,000 years ago) a series of small

glaciers created cirques and deposited moraines in the uppermost elevations of the Wilderness; small lakes occupy most of these glacially-formed basins. Due to the steep slopes and unstable rock-types, mass-wasting continues to be an important erosional factor; the Butte Fork landslide (1920s) and more recent slides in the vicinity form merely the most visible evidence of this on-going process.

The variability of moisture, vegetation and parent material have contributed to the distribution of soil types in Red Buttes Wilderness. Most of the soils are formed from metamorphic or ultramafic bedrock or from compacted glacial till derived from these materials. Typical soils are clay loams with high portions of rock fragments. The serpentine soils are typically very shallow and difficult to revegetate. Because of the steep slopes, mass-wasting is a major problem. Soil compaction and devegetation have been severe along some lakeshore margins.

#### **Management Direction**

Provide for on-going geological and soil survey of the Wilderness by the Forest Service and cooperating researchers, with emphasis on documentation of natural soil conditions.

Disseminate information about land forms and geological history of the Wilderness to the public through maps, brochures, and off-site interpretation.

### **MINERALS AND ENERGY**

#### **Management Objective**

The objective is to assure that any potential mining, energy leasing or related activities permitted by the Wilderness Act of 1964 are conducted so as to create the least possible impact upon the wilderness resource.

#### **Current Situation**

Despite its location within the heavily-mineralized Siskiyou Mountains and the fact that prospecting and small-scale mining has occurred within the area for well over a century, Red Buttes Wilderness does not contain any valid mining claims (based on the

latest available Bureau of Land Management records for 1987), with the exception of a series of placer claims along upper Sucker Creek (Siskiyou N.F.) Approximately a dozen mining claims within the Rogue River National Forest portion of the Wilderness were listed at the time of Wilderness designation in 1984, but these have had no assessment work filed since 1985 and are all now null and void. Except for the Sucker Creek placer claims and, barring changes in Congressional legislation, the question of future mining within the Wilderness is now moot. In the late 1970s U.S. Chrome Corporation leased a block of chromite claims along upper Seiad Creek (outside of the Wilderness) and did some exploratory drilling; future mining activity in this vicinity could be visible and audible from the southeastern margin of the Wilderness.

No gas or oil leases are located within the Wilderness. Geothermal potential is considered to be very low. In 1981, an application was made to the Federal Energy Regulatory Commission (FERC project #4418) for feasibility study of a proposed small hydroelectric facility on the Middle Fork of the Applegate River. Although the generator facility would have been situated outside of the Wilderness, the project called for a power transmission line passing through the center of the Wilderness, crossing the Siskiyou crest between Kangaroo Mountain and Desolation Butte, and linking with the Pacific Power and Light Company's powerline along the Klamath River. This project proposal was evidently abandoned. Section 4(d) of the 1964 Wilderness Act permits power transmission lines and related energy development only by special authorization of the President.

#### **Management Direction**

The Sucker Creek placer claims will be high priority for mineral examination by the Siskiyou National Forest.

### **AIR QUALITY**

#### **Management Objective**

The objective is to comply with requirements of the Clean Air Act so as to preserve clean, healthful air quality within the Red Buttes Wilderness.



### **Current Situation**

No surveys to determine air quality in Red Buttes Wilderness have been undertaken. All wildernesses created by the 1984 legislation are automatically designated as Class II air quality areas as defined by the Clean Air Act. Air quality within the Red Buttes Wilderness is and will continue to be primarily affected by activities (world-wide fossil fuel power generation, slash burning, wildfire, etc.) outside of the Wilderness. Effects from natural fire occurring within Red Buttes Wilderness are not considered when meeting provisions of the Clean Air Act. Fire within the Wilderness can affect visibility for variable periods of time.

### **Management Direction**

Provide for the identification of relevant indicators and the gathering of base-line data relative to Red Buttes Wilderness air quality, visibility and other air quality-related values, and for the on-going monitoring of those indicator levels (see FSM 2323.6).

Cooperate with the States of Oregon and California in the study of air quality relative to the Wilderness.

Determine potential air quality impacts of proposed facilities (in or outside of wilderness) and make recommendations to appropriate air quality management agencies.

Through appropriate wilderness fire management planning, manage smoke from prescribed fire (in or outside of wilderness) in a manner that causes the least impact to air quality-related values.

## **VISUAL QUALITY**

### **Management Objective**

The objective is to preserve the scenic, visual quality of Red Buttes Wilderness so that it retains its natural appearance.

### **Current Situation**

The visual quality within the area has been only slightly altered from its natural state. In about 1940, a low-standard road was built from upper Seiad

Creek to Cook and Green Pass and from there to Lily Pad Lake and an active chrome mine in upper Hello Canyon. However, most changes have resulted from recent trail construction and camping (de-vegetation, cutting of trees for firewood and "camp furniture," etc.). Numerous vista points (Red Buttes and Kangaroo Mountain, Figurehead Mountain pass, Sucker Creek Gap are the most popular) provide long-range panoramas which show the effects of logging and road building adjacent to and surrounding the Wilderness. Most other places give "interior," short-distance views of lakes, brushfields and dense forest within Red Buttes Wilderness itself.

### **Management Direction**

The visual quality objective (VQO) for Red Buttes Wilderness is Preservation (i.e., only ecological change is permitted).

Campsites, trail heads and trails should, when possible, be located so as to avoid low visual absorption capability (VAC) areas (e.g., lake margins, meadows, open slopes) and be sited so as to take advantage of vegetative and topographic screening.

Needed facilities such as trail bridges will be of native materials.

Provide for regular clean-up of litter and trash dumps.

## **FIRE**

### **Management Objectives**

The long-range objective is to allow fire in Red Buttes Wilderness to play, as nearly as possible, its natural, ecological role -- while, at the same time, not compromising public safety or resource values outside of the Wilderness; prescribed natural fire will be authorized by a wilderness fire management plan (an amendment to this implementation plan) as approved by the Regional Forester. The overall objective of wildfire suppression in the Wilderness will be to put out fires, using an appropriate suppression strategy. Any strategy selected should be sensitive to wilderness values.

### **Current Situation**

Based on the accounts of early surveyors and timber cruisers, large fires have been a major factor in the forests of the Siskiyou Mountains for centuries. Beginning with the disastrous fire season of 1910, the Forest Service has actively suppressed fires in the Siskiyou Mountains. Since World War II, aircraft have brought hand crews, smokejumpers, and retardant drops. Improved road systems have made much of the vicinity surrounding Red Buttes Wilderness more accessible to fire-fighting crews and equipment. During the severe fire season of 1987, a series of fires burned much of the Seiad Creek-to-Thompson Creek areas on the Klamath NF immediately to the south of Red Buttes. Fire crossed the Siskiyou Crest in late September, burning 745 acres within the Wilderness (most of them in the Rattlesnake Mountain area and near Lonesome Lake). Suppression measures on the Rattlesnake Fire included use of power saws, helicopters and fixed-wing retardant drops. During the fire, a number of trees were cut for safety reasons at helispots and along the margin of Towhead Lake (a fire-suppression water source); visual rehabilitation measures were accomplished at these sites during the mop-up phase of the fire.

With the advent of the Modified Suppression Policy and the establishment of the Wilderness, controlling fires within the Wilderness boundary has been changed to the "appropriate suppression response." The new policy calls for fire suppression strategies that are based on actual values at risk, life and property threatened, regional fire situation, cost effectiveness, and fire behavior parameters.

### **Management Direction**

Use of prescribed fire in the Red Buttes Wilderness will be based on fire's natural, ecological role. Although additional beneficial effects may result from a decision to use prescribed fire, fire in wilderness will be used only to meet approved wilderness fire management objectives. A detailed Wilderness Fire Management Plan (to be included later as an appendix to this implementation plan) will be prepared; it will discuss when, where, how, and if prescribed fire will be used. The plan will also detail how fires will be suppressed, what techniques and equipment will be used, and what steps, if any, will be taken to rehabilitate the area afterward.

Coordinate wilderness fire management planning and activities with adjacent land-owners and appropriate agencies.

Suppress wildfires within the Wilderness in accordance with direction in FSM 5130, and in FSM 2324.22 R-6 Supp. 88 (6/87).

Utilize the "light hand on the land" approach. In order to avoid undesirable impacts from suppression activities, minimum standards for fireline width are used: "just enough" to halt a fire's spread. Whenever feasible, helispots and spike camps will be located (a) outside the Wilderness or (b) so as to have the least impact to Wilderness values (e.g., locations at lakeshores should be avoided whenever possible). Use of natural barriers is encouraged in lieu of firelines. Cut only those trees necessary to stop the fire or to provide for human safety. Mechanical aids such as chain saws and water pumps are allowed when overall impacts are assessed to be less with their use (they can be used only with specific approval of the Forest Supervisor; the same is true for aircraft). Heavy equipment, such as tractors, is permitted only with Regional Forester approval.

## **SCIENTIFIC VALUES**

### **Management Objective**

The objective is to conduct, provide for, and encourage scientific study that helps establish base-line data on wilderness resource conditions, that is dependent on a natural setting, and/or that seeks to explain natural phenomena or social behavior in wilderness.

### **Current Situation**

The Red Buttes Wilderness provides excellent opportunities for scientific research and observation in a natural setting, particularly in the fields of botany and ecology. To-date, no formal research projects within the Wilderness are documented. One article on the area's botanical diversity has been published:

"Floral Watch on Siskiyou County's Cook and Green Pass"

Author: James B. Roof

Periodical: *The Four Seasons*; Vol. 5, No. 1 (April 1975; East Bay Regional Park District, Berkeley, CA 94708)

Summary: A synopsis of a native plant inventory compiled by Wayne Roderick, Museum Scientist of the University of California Botanic Garden.

An unpublished manuscript which discusses glacial geology of the vicinity is on file in the Geology Section, Rogue River National Forest:

"Reconnaissance of the glacial geology of the Siskiyou Mountains along the California-Oregon Border."

Author: William A. Long (Crescent City, CA, 1982)

The Siskiyou Chapter of the Native Plant Society has conducted informal field trips to the area. Although there may be scientific research projects occurring inside the Wilderness that were initiated without prior notification to/approval by the Forest Service, no such projects are known.

#### **Management Direction**

Non-Forest Service research projects require Forest Supervisor approval (FSM 2324.04.c). Only those applications for research projects that are unobstrusive, wilderness-dependent, and compatible with the goals and objectives of this plan will be recommended for approval. Research activities that adversely affect the experience of Wilderness visitors or that conflict with other management objectives will not be recommended for approval.

Identify appropriate subjects of research and develop a coordinated program (using both Forest Service specialists and researchers from other agencies/institutions) for the establishment of baseline resource information that helps define wilderness character and natural conditions. Research that will help resolve wilderness management problems will be given highest priority.

All research projects which require public contact, specimen collecting, or ground-reference marking, or which require exemption from any regulations will be conducted under special use permit. Any archaeological excavations will also require an Archaeological Resource Protection Act (ARPA) per-

mit. Copies of any scientific reports or publications resulting from research projects should be provided to the Forest(s) involved.

#### **INSECTS AND DISEASES**

##### **Management Objective**

The objective is to allow natural processes of forest insects and disease to operate without human intervention within the Red Buttes Wilderness to the extent that valuable resources outside the Wilderness are not substantially threatened.

##### **Current Situation**

The Red Buttes Wilderness has not been surveyed for commercially harmful insects and tree diseases. It is likely that common diseases present in the surrounding forest are present. No special problems have been noted. Insects and plant diseases associated with wildlands are a natural part of the wilderness environment.

##### **Management Direction**

Provide for inventory and on-going monitoring of insect and disease conditions in the Wilderness; report any unusual occurrences, endemic, or epidemic situations.

Insect or disease outbreaks will not be artificially controlled unless it is necessary to protect timber or other resources outside the Wilderness. (FSM 2324.1)

If control measures are necessary, they shall be carried out by measures which have the least adverse impacts on the wilderness resource.

Insect or disease suppression projects in National Forest wilderness shall be based on the factors set forth in FSM 5234 and be approved by the Chief or the Regional Forester (see FSM 2324.04a and b through 2324.13). Conduct analysis in accordance with FSM 3430.

As long as only methods or equipment that are compatible with the wilderness resource are used, surveys to monitor insects or disease can be conducted in the same manner as prescribed for unclassified forest lands.

## CULTURAL RESOURCES

### Management Objectives

The objectives are to recognize that cultural resources within the Red Buttes Wilderness are a valuable, non-renewable resource, and to inventory, evaluate, protect and enhance significant cultural resources in compliance with both historic preservation law and Forest Service wilderness policy.

### Current Situation

The human past of the Red Buttes Wilderness vicinity is discussed in *Prehistory and History of the Rogue River National Forest A Cultural Resource Overview* (1980, CR Job RR-280, see pages 9-42).

Because of its high elevation, relative inaccessibility and general lack of important economic resources, the land contained in Red Buttes Wilderness has been "peripheral" to most human activities during both prehistoric and historic times. Nevertheless, the area has been used for various purposes over the past several thousand years. This portion of the upper Applegate River drainage is ethnographically documented to have been seasonal territory of the Dakubetede, or "Applegate Athabaskan" Indians. The Siskiyou crest would have been periodically visited by Shasta and Karok groups from the nearby Klamath River; the Takelma of the Illinois Valley probably made occasional forays into the area as well. Most aboriginal use in Red Buttes probably occurred during the summer and early fall (when much of the area is snow-free); hunting (for deer, elk, etc.), gathering of edible plants (e.g., huckleberries, beargrass roots), and inter-group trade (for obsidian, dentalium shells, etc.) would have been the predominant activities. Special religious observances such as the "vision quest" (documented for the Siskiyou Mountains to the southwest, in the Doctor Rock vicinity) may have taken place here as well, although there is no currently available ethnographic or archaeological evidence. The short season of mild weather and the limited amount of food plants and game animals did not encourage native groups to remain in the area for other than brief episodes of transitory use. The sparse prehistoric archaeological evidence so far reported for Red Buttes Wilderness consists of several isolated artifacts (such as obsidian projectile points) and small scatters of waste flakes from manufacturing/retouching stone tools.

During the 1850s, prospectors made the first known visits by Euro-Americans into what is now Red Buttes Wilderness. Prospecting and small-scale

mining, along with trapping, hunting and livestock grazing, became established seasonal uses during the latter half of the 19th century (although a few cabins were probably built as a result of these early activities, little or no visible evidence remains.)

During the early 20th century, the newly-established Forest Service developed the area with trails and seasonal guard stations. Forest Service employees Bill Fruit and Jim Winningham built the shake-and-pole Butte Fork Tool House as a tool cache shed in the 1920s. Fir Glade Guard Station, a small log cabin, was erected in about 1930; Sucker Creek Shelter, a pole-and-shake shelter, was built then also. During World War II, the Federal government financed construction of a low-standard mining road from Seiad Valley to Lily Pad Lake. Chromite ore from the Kubli Mine in upper Hello Canyon was transported over this road in the 1940s. During the 1950s-1960s, logging roads penetrated the stream drainages adjacent to Wilderness. With improved access and fish-stocking of the lakes, recreational use increased.

To date, none of the cultural resources located in the Red Butte Wilderness have been formally evaluated for their historic significance. The Frog Pond Cabin (built ca. 1920s by "hermit prospector" John Knox McCloy) is an architecturally unique and historically significant structure which probably meets the eligibility criteria of the National Register of Historic Places.

### Management Direction

Inventory, evaluate and manage all cultural resources according to the Section 106 process. Establish priority for field inventory based on proposed trail development, campsite development or other land-disturbing activities. Utilize opportunities for qualified volunteers and others to accomplish cultural resource survey in the Wilderness.

Provide on-going cultural resource awareness training to Wilderness rangers and trail crews.

Interpretation of cultural resources in the wilderness will be done through brochures, maps, and signs located outside of the Wilderness boundary. Signs will not be provided for on-site interpretation.

If natural deterioration or removal is determined to be the management prescription for a designated resource, this will be allowed only after thorough photo-recording and other documentation has been completed.

Newly discovered historic and archaeological sites, including isolated prehistoric tools or other evidence, will be noted on a map and promptly reported to the appropriate Forest archaeologist.

If a National Register-eligible/listed structure is managed through an approved schedule of on-going maintenance, any maintenance/repair activities will be done so as to have minimum impact on wilderness values (e.g., use of pre-weathered shakes).

## COMMUNICATION AND EDUCATION

### Management Objectives

The objectives are: (1) to disseminate accurate scientific and educational information about the Red Buttes Wilderness to visitors and other interested persons; (2) to increase public awareness of wilderness management goals and objectives; (3) to encourage acceptance and use of low-impact camping techniques; (4) to achieve compliance with regulations and special orders with a minimum of resistance and ill feeling on the part of visitors; and (5) to direct non-wilderness types of uses to alternative areas through on-going orientation of visitors and Forest Service employees to the Wilderness philosophy.

### Current Situation

Although Red Buttes has been designated as Wilderness only since 1984, prior to that time motorized vehicles were allowed on roads and trails. Most visitors are aware of the area's legal status and, consequently, motorized use and other obvious violations now are quite rare. With the recent and growing popularity of all-terrain bicycles, some intrusions by mountain bikers has occurred; this problem will be lessened through on-going contact with bicycle dealers and direct education via posters at trailheads. Most violations of Wilderness regulations or Wilderness etiquette have involved camping and/or tethering pack-and-saddle stock too close to lakeshores and cutting or damaging trees and other vegetation.

Route descriptions for trails in Red Buttes Wilderness are available in various commercial publications as well as in the Pacific Crest National Scenic Trail maps (Oregon southern portion). The present Forest Service map for Red Buttes Wilderness does not contain any trail descriptions, environmental

background or other information. Other USDA-Forest Service maps and many of the commercially available books include advice on camping and traveling techniques to reduce visitor impact on Wilderness values.

As recreational use increases, effective and timely information and education efforts will be crucial in gaining public acceptance and support for management objectives.

### Management Direction

The content and timing of major public announcements, news releases and other media contact efforts will be reviewed by the Forest Supervisors' Offices and by the Ranger Districts. News releases and other efforts will concentrate on Jackson, Josephine and Siskiyou Counties.

Printed materials (e.g., an updated Wilderness Map) and other public outreach projects relating to Red Buttes will contain information on wilderness management goals and site-specific camping/grazing information. Authors/publishers of trail guides and other books will be encouraged to include "low impact, no-trace" camping, group-size limits, camping/grazing restrictions, and other management messages in relevant publications.

Public involvement and visitor awareness programs will be used in resolving management problems and to help gain acceptance of solutions.

Wilderness rangers will participate in the education effort as a major part of their duties, particularly during periods of peak use. Consistent orientation/training will be provided to all wilderness rangers. The Applegate Ranger District will coordinate orientation sessions.

Wilderness rangers, Forest Service receptionists and other employees who have contact with the public will be well informed about wilderness regulations, management objectives and, insofar as possible, current conditions in the Wilderness. In public contact situations, Forest Service personnel will stress the need to shift non-wilderness types of activities to alternative areas, encourage suitable wilderness behavior, and create additional awareness and appreciation of wilderness values. Contacts with visitors will be done in a manner to minimize the effect on solitude or sense of adventure.

## RED BUTTES WILDERNESS MONITORING PLAN

Below is a basic monitoring plan designed to assess human-caused (largely recreation-related) impacts in the Wilderness. The indicators are related to criteria in FSM 2320.2, R-6 Supplement 81. Forest standards, specific to the Wilderness, may be developed and used. (The Bob Marshall Wilderness Action Plan can be used to help develop detailed mon-

itoring procedures.) The kinds, methods, and frequencies of monitoring will probably be modified during the initial phase of the monitoring program, and this plan will require regular updating. However, the program should aim for long-term procedural stability so that a solid body of accurate, comparable data is accumulated.

Indicator	Standard	Inventory Method	Sampling Procedure	Frequency
Party Size	8 people/12 head of stock	Visual Count	Count and record on patrols	Each patrol
Encounters	As per specific WRS (Supp. 81) & Forest Standards	Visual Count	Count and record patrols	Each patrol
Campsite Density	As per specific WRS (Supp. 81) & Forest Standards	Visual Count	Count and record on patrols	Each patrol
Campsite Location	100 feet from lakes streams and trails	Visual Observation	Count and record on patrols	Each patrol
Soil Compaction	As per specific WRS (Supp. 81)	Ft <sup>2</sup> measurement	Measure and photograph selected campsites	Every 3-5 years
Campsite Condition	Per Supp. 81 & Forest Standards	L.A.C.	Inventory	Every 3-5 years
Trail Condition	As per maintenance level and safety	Visual observation	Record on patrol	Each patrol, or as needed (periodic trail condition survey at least every 3-5 years)
Grazing Areas	200 feet from lakes and streams, out-of sight from trails	Visual observation	Count and record on patrols	Each patrol, or as needed
Water Quality	To be determined; monitoring station downstream from Azalea Lake	Fecal coliform count; giardia	Laboratory methods	Early & late in use season, at least every 3-5 years

The above list shows a strong emphasis towards measurement of recreation-related impacts; however, inventory, analysis, and on-going monitoring of all resource conditions (whether or not they are directly impacted by human use) is a major objective of wilderness management. An important part of the monitoring plan for Red Buttes Wilderness will be (a) to identify significant parameters for various resources (e.g., parameters indicative of air quality and related values, water chemistry and quality, soil conditions, biotic communities, fire effects, archae-

ological evidence of prehistoric land-use patterns), (b) to select measurable indicators that are capable of showing resource change over time (e.g., visibility from selected viewpoints, water acidity and contamination levels, population and distribution of indicator species, etc.), and (c) to implement a base-line inventory and on-going monitoring program for these resources. Development of this program will be given a high priority in management planning for the Red Buttes and Sky Lakes Wildernesses.

## RED BUTTES WILDERNESS

### ACTION ITEMS/IMPLEMENTATION SCHEDULE

The Implementation Plan identifies management direction for the various resources. The following list identifies some of the necessary actions, the re-

sponsible party, and the target date for completion in order to achieve the Plan's management objectives. This schedule will be revised annually.

Action	Responsibility	Target Date
Resource Inventory/Monitoring Program 1. Develop a coordinated effort and design an integrated program for scientific base-line data inventory and on-going resource monitoring. (See Appendix A)	SO	By 1991
2. Implement annual or regular data-gathering and monitoring procedures, utilizing FS specialists, technicians, wilderness rangers, cooperating agencies/institutions, and volunteers.	District, SO	By 1992-3
Recreation 1. Collect and analyze monitoring by Oct. 31 2. Revise monitoring plan if necessary	District, SO District, SO	Annually plan by Oct. 31
Vegetation 1. All projects where vegetation may be affected will be surveyed for sensitive plants prior to implementation. 2. Rehabilitate impacted areas if needed.	Applegate RD, SO District	On-going Begin 1989
Visual Quality 1. Remove all unnecessary visual intrusions (improvised camp structures, trash).	District	On-going
Cultural and Historic Resources 1. All project areas such as trail construction, trailhead development, and campsites will be inventoried before project implementation.	District	On-going
2. Eligible sites will be nominated to the National Register of Historic Places.	SO	As discovered
3. Develop management schedules for significant sites in consultation S.O. with the State Historic Preservation Officer	District	As needed



Action	Responsibility	Target Date
<b>Access Roads</b> 1. All roads entering the area will be blocked. 2. The need for rehabilitation will be analyzed	District District	As needed Annually
<b>Trails</b> 1. Maintain trails in accordance with management objectives.	District	On-going
<b>Trail Heads</b> 1. Monitor trail heads for use and environmental impacts. 2. Provide adequate user information at trail heads each season.	District	On-going
<b>Signing</b> 1. Current signs will be replaced with ones which conform to Wilderness standards; update bulletin boards.	District	On-going
<b>Administration</b> 1. The implementation schedule will be updated regularly.	District, SO	Annually
<b>Communication and Education</b> 1. Make informational and educational materials regarding Wilderness available to the public; update wilderness map.	District, SO as needed	On-going,

## RED BUTTES WILDERNESS

## TRAILS

## APPLEGATE RANGER DISTRICT

Name	Number	Miles*
Pacific Crest	2000	0
Middle Fork	950	2.4
Butte Fork	957	9.7
Frog Pond	953	5.4
Shoofly	954	0.7
Azalea Lake	955	5.4
Phantom Meadows	955A	1.0
Fort Goff	956	2.1
Steve Fork	905	3.0
Sucker Creek	906	2.0
Total Active Trails		31.7
Deactivated Trails: Sweaty Gulch	954	3.1

## ILLINOIS VALLEY RANGER DISTRICT

Active, 1988 (Illinois Valley)	Number	Miles *
Boundary	1207	1.3
Tannen Lakes	1243	3.5
Fehley Gulch	1231	1.6
Sucker Creek	1237	4.0
"Old" Boundary Trail	no #	0.9
Total Active Trails:		11.3

\*Estimated mileage for inside Wilderness only; total = 43.0 miles

## Appendix E

# SKY LAKES WILDERNESS IMPLEMENTATION PLAN

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## INTRODUCTION

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The Oregon Wilderness Act, PL 98-328, signed into law on June 26, 1984, established the Sky Lakes Wilderness.

The Rogue River and Winema National Forests share the administrative responsibility for the Sky Lakes Wilderness. This plan implements wilderness management strategies given in the land management plans of each of the two National Forests involved. The Rogue River National Forest is the lead Forest for planning purposes for the Sky Lakes Wilderness.

The purpose of this document is to identify existing management situations in the Wilderness, to provide long-range management objectives, and to give direction under which specific action items will be identified and accomplished.

## OVERVIEW OF MANAGEMENT SITUATION

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### LOCATION AND AREA

The Sky Lakes Wilderness is located in Jackson and Klamath Counties approximately 30 miles east of Medford, and 25 miles northwest of Klamath Falls, Oregon. Occupying the crest of the Cascade Range from Crater Lake National Park on the north to the Fish Lake/Highway 140 vicinity on the south, the Wilderness includes land administered by three Ranger Districts on two National Forests (Butte Falls and Prospect Ranger Districts on the Rogue River National Forest and the Klamath Ranger District on the Winema National Forest).

The total area for the Sky Lakes Wilderness is 113,413 acres (70,113 acres on the Rogue River National Forest and 43,300 acres on the Winema National Forest).

### GENERAL DESCRIPTION

The Sky Lakes Wilderness, with elevations ranging from 4,000 to 9,475 feet above sea level, consists of the crest zone of the High Cascades. Although steep relief is found in such places as the glacially-carved Middle Fork of the Rogue River Canyon and the slopes of Mount McLoughlin, Sky Lakes is generally characterized by gentle, forested terrain of volcanic origin. The high-elevation forest is composed largely of mountain hemlock and Shasta red/noble fir stands which are interspersed with small meadows and numerous lakes, most of them concentrated in three glacial basins near the crest of the Cascades.

Summers in the Sky Lakes Wilderness tend to be warm and dry; except for occasional thunderstorms, little precipitation falls from June to October. Winters can produce a deep snow layer, often preventing easy access into the area until mid-July. The primary recreation season begins at about that time each year and lasts into the late October elk hunting season.

Most recreation activities (hiking, camping, fishing, horse packing) are concentrated in the three major lake basins (Seven Lakes, Sky Lakes and Blue Canyon). At the southern extreme of the Wilderness, the summit of Mount McLoughlin attracts large numbers of day hikers each summer. The less-used northern part of Sky Lakes sees some of its heaviest use during the autumn elk hunting season. Running the entire north-south length of Sky Lakes Wilderness is the Pacific Crest National

## SKY LAKES WILDERNESS IMPLEMENTATION PLAN

Scenic Trail, a popular recreational facility of national importance which accounts for many of the area's visitors.

### HISTORY

Historic uses of the Sky Lakes Wilderness have included stock grazing (particularly sheep in the late 19th and early 20th centuries, and cattle since about 1920), hunting, berrypicking, hiking, camping and, after the initiation of lake stocking in the early 20th century, fishing. Recreational use of the present Sky Lakes Wilderness probably increased during the 1920s, due to construction of the Oregon Skyline Trail, and the 1930s, when the first administrative "backcountry protection" measures were applied to the area and when trail and camp shelter construction occurred under the Civilian Conservation Corps program. During the post-war years heavy use at some lake margins led to soil compaction and vegetation loss at some sites.

Because local trans-Cascade travel routes were located well to the north and south, the Sky Lakes area's remote character was preserved. Crater (now Rogue River) National Forest Supervisor Hugh B. Rankin recognized the unique values of the vicinity in 1932 when he recommended that 3,000 acres in the Seven Lakes Basin be set aside for backcountry recreation use. Two years later, the basin received official Forest Service designation as an "unusual interest area." In 1946, Regional Forester H.J. Andrews designated the Seven Lakes and Blue Canyon basins as "limited areas," and there the situation remained for over two decades. Under this designation, no additional roads were permitted, motorized transportation was prohibited, and the area was closed to occupancy under special use permits except by personal approval from the Regional Forester.

Following creation of the Winema National Forest in 1961, agency interest in the management of the Sky Lakes area revived. After passage of the Wilderness Act of 1964, public discussion focused on possible wilderness designation. With the Roadless Area Review and Evaluation (RARE I) effort of the early 1970s, Sky Lakes was recommended for wilderness study. Wilderness Study Area designation in 1973 precluded motorized use and other incompatible (i.e., non-wilderness) activities.

Also during the 1970s, various special orders (pack and saddle stock restrictions, lake margin camping restrictions) were issued, campsite restoration projects were implemented, and the "wilderness ranger" program was established. With completion of RARE II in 1979, the Forest Service recommended Sky Lakes for wilderness designation (104,341 acres). During the 1980s, campsite restoration has continued, party size limitations have been established, and lakeshore management plans have been completed. Sky Lakes Wilderness (113,413 acres) was created by Congress in June of 1984.

### MANAGEMENT GOAL FOR THE SKY LAKES WILDERNESS

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Wilderness is a distinct resource to be managed for the use and enjoyment of the American people in such manner as will leave it unimpaired for future use and enjoyment as wilderness.

The Sky Lakes Wilderness will be administered to minimize the impact of humans and their technology upon the wilderness resource. In this area, people will be temporary visitors who leave no permanent imprint of their use. The forces of nature will dominate the landscape and human activity will be limited to that of an unobtrusive observer.

Management of the Sky Lakes Wilderness will seek to minimize the physical and social impacts of use rather than use per se. Wilderness exemplifies freedom, but it is defined more by the absence of human impact than by an absence of human control. Management will seek to preserve spontaneity of use and as much freedom from regimentation as possible while preserving the naturalness of the wilderness resource, its opportunity for solitude or primitive recreation, and its scenic, scientific, educational, and historical values.

To the extent that the wilderness resource is not impaired, the Sky Lakes Wilderness will be managed to provide opportunities for primitive recreation featuring solitude, physical and mental challenge; freedom from the intrusion of unnatural sights, sounds and odors; and the chance to travel and camp without mechanized aids in an environment where visitors' successes and failures are directly dependent upon their abilities, knowledge and initiative.

The Sky Lakes Wilderness will be managed to ensure protection of its scientific values (including natural resources and cultural resources) as well as to provide for appropriate research and dissemination of public information about those values.

## WRS CLASSIFICATION AND CARRYING CAPACITY

The Wilderness Resource Spectrum (WRS; formerly called the Wilderness Recreation Opportunity Spectrum or WROS) concept will be used to provide guidance for managing the physical/biological, social and managerial settings as per Forest Service Manual (FSM) 2320, Region 6 Supplement 81 (6/87).

The WRS concept provides a quantifiable description of the kinds of resource and social conditions appropriate for a variety of opportunity classes within wilderness. The three WRS classes are Pristine, Primitive, and Semiprimitive. FSM 2320, R-6 Supp. 81, which describes the characteristics and standards for the different classes, is located in the appendix of this document.

### WRS INVENTORY OF PRESENT CONDITION

Using the WRS criteria, the present condition of the Sky Lakes Wilderness was evaluated. The high standard trail system, the narrow shape and ease of access, and the presence of many high-impact campsites at lakeshore margins are factors which contribute to Blue Canyon, Sky Lakes, and Seven Lakes basins being inventoried as Semiprimitive. The Mount McLoughlin Trail corridor, the area of the wilderness adjacent to Fourmile Lake, as well as the main access routes to the lake basins mentioned above were also inventoried as Semiprimitive. The remainder of the Wilderness was inventoried as Primitive.

### WRS MANAGEMENT DIRECTION

FSM 2320, R-6 Supplement 81 (6/87) furnishes direction to provide for more primitive settings and recreation experiences within the core areas of wilderness. Therefore, the desired future condition of the Sky Lakes Wilderness is to provide a more primitive experience by managing it as follows:

The area of the Fantail Creek, Big Ben Creek and Wickiup Creek drainages will be classified as Pristine WRS.

The bulk of the interior will be classified as Primitive WRS. This includes the area north of the Middle Fork of the Rogue River, Seven Lakes Basin, and most of the Sky Lakes and Blue Canyon basins.

The Semiprimitive WRS class extends from the wilderness boundary inward along trail corridors from several major trail access points (e.g., Seven-mile Trail, Seven Lakes Trail, Blue Canyon Trail, Cold Springs Trail, Mount McLoughlin Trail) and the popular Fourmile Lake recreation area adjacent to the wilderness boundary. This class receives substantial day-use mixed with visitors traveling to and from the Wilderness interior. The acreage is as follows:

Pristine	13,720
Primitive	85,499
Semiprimitive	14,194

(WRS map available for review in RRNF SO-Recreation)

### CARRYING CAPACITY

The maximum number of persons which a specific area can support for wilderness recreation depends on many factors. Some are physical characteristics of the land (vegetative communities present, percent slope, etc.); others relate to social factors (the types of uses and user behavior). Any estimate of numerical carrying capacity is purely theoretical, but it provides a basis for establishing guidelines. The two National Forest's FEIS Land Management Plans utilized the following information; however, on-the-ground management will use a modified "Limits of Acceptable Change" process as the basis for actual management decisions.

A preliminary estimate of carrying capacity by WRS is indicated below. Carrying capacity estimates will be evaluated and, if necessary, modified to reflect information gained from monitoring specific conditions within the Wilderness as outlined in FSM 2320, R-6 Supp. 81 (6/87).

## WRS CARRYING CAPACITY

WRS Class	Acres	Carrying Capacity Coef. RVD/Acre/Yr*	Capacity RVD/Yr
Pristine	13,720	0.15	2,058
Primitive	85,499	0.29	24,795
Semiprimitive	14,194	0.43	6,103
TOTAL	113,413		32,956

\* (WRS carrying capacity coefficients prepared by John Czemerys and Phil Akerman, 2/86; 130-day use season assumed.)

According to the Resources Planning Act Assessment of 1980, demand for primitive recreation experience in National Forests increased faster in the previous 30 years than any other recreational uses; however, demographic factors may cause a relative Projected Use:

"stabilizing" of user-demand during the next decade.

1980 Use RVD	Multiplier \$\$	2030 Use RVD
18,000	2.69	48,420

\*\*(Growth rate 2.0 percent per annum compounded for 50 years [1980-2030] = 2.69.)

Demand for the area by the year 2030 will exceed theoretical capacity. However, use is not evenly distributed. Use in some of the more popular areas may already be above theoretical capacity. Monitoring (using the criteria listed in FSM 2320, R-6 Supp. 81) will help determine if the desirable conditions for a given area are being degraded, maintained or being improved.

to conduct necessary administrative activities most protective of the wilderness resource with minimal impact on and from adjacent non-wilderness lands, and (d) to inventory (and in particular to gather base-line scientific data about) the various resources and natural systems of the Sky Lakes Wilderness.

#### Current Situation

The Sky Lakes Wilderness is jointly administered by the Winema and Rogue River National Forests. It lies within the jurisdiction of three ranger districts: the Klamath Ranger District of the Winema National Forest and the Butte Falls and Prospect Ranger Districts of the Rogue River National Forest. The Rogue River National Forest is designated as the lead Forest to coordinate the preparation of the implementation plan as part of the Forest Planning process. Administrative responsibility for on-the-

## MANAGEMENT OBJECTIVES, SITUATION and DIRECTION

### ADMINISTRATION

#### Management Objectives

The objectives are: (a) to preserve the integrity of the wilderness resource, (b) to provide uniform and consistent administration by all Ranger Districts, (c)

ground management of the area is shared between the Butte Falls District and the Klamath Ranger Districts (the Prospect Ranger District has transferred on-the-ground administrative responsibilities for its portion of the Wilderness to the Butte Falls Ranger District).

### **Management Direction**

Ranger District annual operating plans will be prepared, stating specific local actions needed to achieve operational objectives and to implement management policies and actions stated in this plan.

Key personnel from the Rogue River and Winema National Forests will meet as needed to insure uniform management and coordinate their respective operating plans and other management activities.

Coordinated wilderness budget planning will be done to assure that each Ranger District's wilderness management needs are recognized, as well as to ensure that base-line inventories and on-going study of various resources (e.g., soils, air, water, vegetation, wildlife, archaeology) are conducted as an integral part of wilderness management.

Wilderness rangers are key to implementation of many aspects of wilderness management direction in Sky Lakes. Emphasis will be given to (a) maintaining a staff of experienced, motivated and articulate personnel in ranger positions, (b) providing Level II law enforcement training to these people, and (c) ensuring that rangers are in the field during weekends throughout the high-use period (July 4- Labor Day). In so far as possible, wilderness rangers will be trained and utilized to help gather systematic, scientific data on wilderness resources (e.g., periodic water quality sampling, air quality monitoring, range survey, fuel loading inventory, archaeological reconnaissance, etc.). Wilderness ranger meetings will be held as needed to coordinate field activities between administrative units.

All administrative activity will be conducted to minimize the impacts on the wilderness environment and the experience of users. All non-routine projects will be described in the appropriate Ranger District's annual action plan.

To promote an understanding of the purpose of wilderness, a close working relationship will be

maintained with all wilderness user groups and appropriate research institutions, as well as all federal, state, and county agencies that have jurisdiction over or influence the use of the wilderness (e.g., Crater Lake National Park, U.S. Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Environmental Quality, Oregon State Police, Jackson and Klamath County Sheriffs' Departments).

### **TRAILS AND TRAVEL**

#### **Management Objectives**

The management objectives are: (a) to provide a range of challenges to wilderness users through a spectrum of access opportunities, including cross-country travel and trails of varying difficulty for horse and foot travel; and (b) to minimize physical and visual impacts upon the land, conflicts between users and concentrations of use harmful to the wilderness resource.

#### **Current Situation**

The area is surrounded by forest roads. In several places, the wilderness boundary is adjacent to a road. Based on the final, legal wilderness boundary description issued in 1987, in these areas the boundary varies from 100 to 200 feet from the center line of the road, and in other locations the boundary is immediately adjacent to the nearest edge of the road prism (top-of-the-cut or toe-of-the-fill); see 1987 final boundary description for site-specific information. A rough truck trail accessed Christmas tree cutting areas in 1940; known as the Hemlock Trail, this route has been closed to vehicle use for years. A salvage logging road, built in the 1950s, accessed a stand of burned timber near the head of Sevenmile Creek.

Most of the wilderness is served by a well-distributed, high-standard trail system. In some high-use areas, the high density trail situation may be reaching a "saturation point" in regards to access. There are approximately 160 miles of active trails within the wilderness (94.3 miles on RRNF; 67.5 miles on WNF). In a few places, current trail standards are too high (e.g., Blue Canyon Trail, which was used by motorcycles previous to 1973).

Some pieces of the trail system have been recently completed or are still proposed. In addition, approximately 46 miles of trail, primarily in Pristine WRS, have been removed from the trail system and, although periodically monitored, are no longer maintained.

Specific WRS trails management guidelines for the Wilderness are as follows:

Pristine WRS: No trail maintenance or new trail construction. A major objective in this WRS will be to provide and maintain opportunities for cross-country, "trail-less" travel.

Primitive WRS: New trail construction will be done primarily to resolve recreation and wilderness management problems. New trails will be constructed only if they meet a clearly demonstrated need and after a thorough analysis of its effects on the wilderness resource. Routes will be maintained to protect resources and the investment and to provide challenge.

Semiprimitive WRS: New trail construction will be done only to resolve recreation and wilderness management problems, as well as to complete cross-country ski trail loops in the Mt. McLoughlin vicinity.

### Management Direction

Sky Lake Wilderness is probably sufficiently trailed for current and projected needs; new trail construction will be done only after a thorough analysis of the potential consequences (e.g., overcrowding of lake basins) of the new trail. In general, trailheads adjacent to or accessing the Wilderness should be "low development" sites with adequate parking, informational signing, etc.; corrals and other facilities should be constructed only if wilderness values are not adversely affected and when a thorough analysis has demonstrated a real need for the facility.

New trails will be constructed to standards compatible with those existing trails with which they tie. Routes will only modify natural conditions to the extent necessary to protect the environment and provide for safe use by a user with limited experience and average physical ability.

Continue to remove trail structures not essential for visitor safety or resource protection; do not construct any non-essential structures in the future.

All trails will be maintained to a standard appropriate to the trail's planned difficulty level and type/amount of use (see Appendix C of this plan).

All trails leading into the Wilderness will be maintained from the nearest trail head by the appropriate Ranger District.

Monitor trail use damage. When damage occurs, either reconstruct and maintain the trail to correct the damage or prohibit the types of use causing the damage.

Allow trail prism of abandoned trails to revert to a natural condition; where resource damage is occurring, obliterate trail segment and/or restore to natural condition as needed to halt damage.

Use of motorized/mechanized equipment for trail work will conform to FSM 2326.1 and FSH 2309.19.

Before a proposed trail relocation project is approved, the following criteria will be met:

The "old" trail presents unacceptable resource damage or safety hazards, and short, local re-routing will not eliminate the problem(s). User convenience (for example, steepness) is not an acceptable rationale for relocation.

The old trail can be successfully closed and no attractions along the route will cause visitors to continue using it.

A plan for restoration of the old trail grade has been prepared; funds for the reconstruction work will be allocated as part of the relocation project and the work will be accomplished within no more than one year after the new construction has been completed.

The relocated route (1) generally avoids lakeshores, streamsides, potential or existing campsites, "sensitive" areas (soils, plants, etc.) and (2) does not intrude into Pristine WRS class.

Some wilderness trails are or may be identified as "primitive, challenging" trails; the proposed



relocation should not upgrade such a trail into a higher-standard, even-grade, highly-visible trail.

Bridges and culverts should be used only when no other, natural crossing is feasible. If gravel is needed, it should be taken from a nearby (i.e., "native rock") borrow pit that is out-of-sight of trails; the source area should be rehabilitated immediately.

The proposed relocation should incorporate as much diversity in grade as the soil can tolerate, consistent with anticipated use (i.e., hiker-only trails can be steeper than those used by stock).

Environmental analysis has been documented and line officer approval has been given.

## **SIGNING**

### **Management Objective**

The management objective is to provide signs only where necessary to protect the wilderness resource and for basic visitor orientation.

### **Current Situation**

The majority of the signs within the Wilderness are standard design white oak, routed signs. Many older signs have destination mileages; these are being replaced with standard signs as they deteriorate. Posts, where needed, are round native material. Most of the signs are in good condition.

Standard oak wilderness entry signs were installed in FY 86.

### **Management Direction**

All signing within the Wilderness will conform to Region Six standards (FSM 7164, R-6 Supp. 32). Existing signs are in good condition. Most will not need to be replaced for many years.

All Districts will continue to coordinate sign maintenance and replacement needs in the areas on District boundaries. All Districts will sign to the same standards and design.

Administrative or regulatory signing will be used only when necessary and will be of the minimum size feasible.

Signing will not be used: (a) in Pristine WRS areas, (b) on non-system trails, (c) to identify natural features, (d) to give distances, or (e) to provide on-site interpretation.

Wilderness boundaries adjacent to planned timber sales or other activities will be surveyed and marked to Regional (FSM 7151) standards; the necessary work will be paid for by the appropriate function (e.g., timber in the case of adjacent timber sale boundaries). Wilderness boundary signing/markings, where needed, will comply, as far as possible, with the visual objectives of wilderness.

Maintain bulletin boards with wilderness regulations and other information pertinent to wilderness at all major trail heads. Post all trail heads with "no motorized use" and "no bicycle" posters. Districts will coordinate the information to be displayed in order to ensure consistency of information at all sites.

## **RECREATION**

### **Management Objective**

The objective is to provide a spectrum of opportunities for primitive recreation featuring a natural wilderness environment, solitude, physical and mental challenge, and inspiration consistent with preservation of wilderness values. In situations that present potential or actual recreational conflict with wilderness values, wilderness values shall take precedence.

### **Current Situation**

Sky Lakes Wilderness is managed to provide a wide range of primitive types of recreational experiences which include hiking, back-packing, camping, hunting, horseback riding, fishing and other non-motorized/ non-mechanized activities by individuals or appropriately-sized groups. Some cross-country skiing day-use occurs near Mt. McLoughlin, along Cherry Creek and Sevenmile Creek, with a few backcountry overnight trips into the lake basins.

Mount McLoughlin, the highest point in Oregon south of the Three Sisters, provides a physically

challenging but non-technical climb; the mountain summit has long been a popular day-hike destination for local families and groups.

Field data indicate that most recreation uses (camping, fishing pack-stock grazing and other potentially "high impact" activities) in the Wilderness are concentrated in the three major lake basins (Seven Lakes, Sky Lakes, Blue Canyon basins). These uses are further concentrated at specific sites on the margins of about a dozen popular lakes. Based on 1976-1987 use-data, between 85 and 95 percent of users access the Wilderness on foot ("backpackers") and 5-15 percent of users travel by horse or other stock. This use is concentrated (75% of total) on weekends and holidays from mid-June through early September, with another high use period occurring during weekends of the autumn elk season.

### **Group Size**

At the southern extreme of the Wilderness, the summit of Mt. McLoughlin attracts large numbers of hikers each summer; this traditional (pre-Wilderness) use is typically a group-oriented activity, and party sizes often exceed the Supplement 81 guidelines for the Semiprimitive WRS class (12 persons maximum).

Monitoring during the 1987 season indicated that, on weekends, the number of social encounters (inter-party contact) per day in the Primitive WRS lake basins is near the upper limit of Supplement 81 guidelines: 7 encounters per day (visitor use in 1987 was low due to the severe fire season, campfire closures and smoke pollution in southern Oregon).

The group-size limit up through 1988 was 12 (persons/stock combined). Supplement 81 guidelines suggests party size limits which range from 6 to 12 people, depending on the actual number of encounters in an area.

Encounters in the Primitive WRS lake basins indicated that maximum group size was larger than appropriate; public input received during the Forest Planning process indicated that some users wanted to keep the group-size limits at the then-current numbers; organized horse groups in the local area, on the other hand, felt that the party size limit of 12 (people/stock combined) was too restrictive. Group size/number of stock has been the most controver-

sial recreation issue in the management of the Sky Lakes Wilderness.

After soliciting, receiving and analyzing public input on the question of wilderness group-size during the Forest Planning process, the following standards are approved for implementation:

### **Group-Size and Recreational Stock-Use Standards**

Standard group-size throughout the Sky Lakes Wilderness is a maximum of 8 people and, when saddle or pack animals are involved, 12 head of stock.

Use of high-line tethering will be encouraged; tying of stock directly to live trees for over one hour is prohibited.

There are three high lake basins where resource conditions and use factors require special management strategies to manage the impacts that can be caused by camping and stock use:

In Seven Lakes Basin and Blue Canyon, groups with stock are required to camp only in designated "horse camps"; hikers will not be permitted to use these camps.

In Sky Lakes Basin, sensitive areas will be identified. Groups wishing to camp within the identified sensitive areas will be required to obtain a permit from the Klamath Ranger District. Permits may specify campsite location, group size, dates of use, and any other special requirements to protect wilderness values.

Outside of these three identified areas, groups with stock may use any campsite consistent with other wilderness regulations.

No grazing will be permitted within the three high-use areas (except in designated meadows after August 1); stock users in these areas will have to provide their own feed.

For larger groups (maximum of 30 people/stock combined), permits will be required; permits may or may not be issued, depending on potential conflicts with wilderness values. Permits, obtained from Ranger District(s), will specify assigned dates, route, campsites and group-size; large groups will

be permitted to travel/camp in the three high-use areas only during weekdays.

### Campsite Conditions

Campsites in the high-use lake basins reflect the long period of intensive use. Approximately 59 percent of the campsites exhibit unacceptably high impacts. Vegetation loss/barren core area is in excess of Supplement 81 guidelines on 44 percent of the campsites. The average barren core area of the inventoried campsites is 2.4 times greater than the standard of 400 square feet.

### Outfitter Guides

Traditionally, due to the area's small size and easy access, users have not required the services of outfitter guides in Sky Lakes Wilderness. In 1988, there were special use permits issued for: one active, commercial guide service; one inactive, commercial guide service; and one active, non-profit guide service. The 1985 interim Sky Lakes Plan set a limit of three outfitter guide permits, with the possibility of two additional permits during hunting season.

### Management Direction

Implement management techniques to achieve target WRS classes. Monitor use throughout the area to determine if management is achieving results.

Pay particular attention to areas that are already heavily used. Use FSM 2320 R-6 Supp. 81 to provide a list of indicators to monitor.

Manage to the designated WRS classes using the criteria in FSM 2320 R-6 Supp. 81. Utilize the "Limits of Acceptable Change" (LAC) system for establishing acceptable and appropriate resource, social and managerial conditions. The LAC System represents a reformulation of the recreational carrying capacity concept, with the primary emphasis on the conditions desired in the area rather than on how much use an area can tolerate.

If LAC system analysis of the area indicates unacceptable impacts to the wilderness resource are occurring, the following options should be executed in the order listed:

Seek information and input from full spectrum of wilderness users, particularly regarding: (1)

their perceptions of user impacts/conflicts and (2) their ability to help mitigate impacts or reduce conflicts.

Disseminate information to describe the over-use situation and to discourage and redirect use. This may involve advertisement of little-used areas or areas outside the Wilderness.

Design and manage access roads, trails, campsites and trailheads so as to alter use patterns.

Apply regulatory controls (i.e., adjust group-size limits, guide use, etc.) as necessary, and with a coordinated public information program.

With the exception of "through travellers" on the PCT (up to 12 hikers) and the Mt. McLoughlin Trail, enforce group-size standard limit of 8 people per group (hikers or stock users) and up to 12 head of stock per group. Any numbers in excess of these will require obtaining written permission from the Ranger District(s) involved prior to the trip. The "large group" wilderness permit will give numbers of people/stock, travel routes/campsite destinations, and dates for each trip. (See "Current Situation" discussion of this section for group-size and recreation stock-use standards.).

Implement and monitor effectiveness of Mt. McLoughlin Trail management measures agreed to by RRNF/WNF in 1987 (information sign at Wilderness boundary with trail R0G dispenser; use rock cairns and old FS telephone poles as trail markers above timberline; conceal/obliterate "spur" trails and spray-painted trail markers).

Standard group-size limit (8 people) will not apply to the Mt. McLoughlin Trail. Encourage small group-size (8-12) use by Mt. McLoughlin climbers through on-going education; monitor use and periodically assess potential need and effectiveness of regulatory controls for Mt. McLoughlin.

Retain 100-foot minimum distance from lakes and 50-foot distance from streams for camping (as opposed to Supplement 81 guidelines for 200-foot minimum distance) in order to confine site degradation; use 200-foot (lakeshores)/50-foot (streams) minimum distance for stock grazing/tethering. (NOTE: 100-foot minimum has been in effect since wilderness designation; expansion to 200-foot minimum for camping, as called for in FSM 2320 R-6

Supp. 81, is not adopted because it would simply create an additional "ring of impact" around each lake and, in many cases, there is not adequate campsite potential beyond 100-150 feet from lakeshore.)

Areas of severe human-caused erosion/compaction will be closed/rehabilitated with native species of vegetation. Surface water runoff that collects on trails in campsites will be controlled to prevent accelerated erosion or other impacts.

Continually update Recreation Information Management (RIM) use-data to include Recreation Visitor Day (RVD) estimates and other use information based on annual wilderness ranger records and other data.

In addition to regular monitoring elsewhere, periodically monitor use (group-size, social encounters) at Hemlock Lake and other locations in Pristine WRS class.

Recognize that the potential number of "horse camp" sites in Seven Lakes Basin and Blue Canyon is limited, as well as that expanded numbers of stock and on-going "horse camp" use will involve an increase in the size of "barren core area" in those sites. Wilderness management personnel will identify maximum potential "horse camp" sites and will determine site-specific LAC indicators and monitor change.

Relative to outfitter guides, a standard maximum of three permits will be issued for Sky Lakes, but with the possibility of additional special use permits on a case-by-case basis. Outfitter guides will submit an annual operating plan to the appropriate Ranger District(s) for review, revision and approval; these plans will detail maximum number of clients/stock, location of campsites, timing, routes of travel, and other information pertinent to wilderness management.

No outfitter guide caches will be permitted anywhere in the Wilderness.

Outfitter guide campsites will be requested through the permittee's annual operating plan; approved campsite locations will be designated by the District Ranger(s).

Through the approval of an outfitter guide's annual operating plan, permittees may be required to pack sufficient feed to sustain their stock for all or part of the trip.

The same group-size standards and camping/stock-control restrictions apply to outfitter guides as to other wilderness users, with the potential for further restrictions if necessary on a case-by-case basis.

Guide permit applications and operating plans should be submitted by March 1 or 30 days prior to the anticipated period of use.

Applications for outfitter guide permits or operating plans involving dog-assisted hunting or pursuit in the Wilderness will be reviewed by the District Rangers on a case-by-case basis in order to ensure that the timing and area is compatible with other wilderness users. In cooperation with Oregon Dept. of Fish and Wildlife, District Ranger can restrict such activity from high-use areas during high-use periods due to conflict with the solitude objective of wilderness management.

Prohibit competitive contest events, group demonstrations, ceremonies, and other similar events inside the Wilderness.

Noise caused by low-flying jet aircraft has resulted in occasional complaints from wilderness visitors; continue to monitor and cooperate with Regional and Washington Office efforts to resolve this problem. District Rangers will contact appropriate personnel at Kingsley Field, Jackson County Airport, and other jet airfields in the vicinity in order (a) to review FAA regulations relative to restrictions on overflights of the Wilderness and (b) to facilitate the transmittal of relevant information to pilots.

## STRUCTURES AND OTHER FACILITIES

### Management Objective

The objective is to maintain the Sky Lakes Wilderness free of facilities and structures except those necessary to protect the wilderness resource or as permitted by section 4(d) of the Wilderness Act of 1964. Related management objectives/direction are

set forth elsewhere in this plan under the appropriate resource discussions.

### Current Situation

The Sky Lakes Wilderness has relatively few structures or other facilities. The sites of former fire look-outs on Devil's Peak and Mount McLoughlin are now marked only by the remains of mortared rock foundations. The Wilderness once contained several shake-over-pole Adirondack-style camp shelters but these either have been removed (Stuart Falls, Grass Lake) or have collapsed and are no longer useable (McKie Camp, Wickiup Meadow). A small shake-over-pole cattlemen's cabin (built circa 1942) is located at Solace Cow Camp in the northern portion of the Wilderness. The grazing allotment has been abandoned since before 1984 and the cabin receives use by elk hunters and others. Recently constructed "hunters' cabins" (e.g., on Cherry Creek), corrals (e.g., at Wickiup Meadow), and other user-built facilities are dismantled when found by Forest Service personnel. No water diversion facilities (dams, ditches, flumes, etc.) exist within the Sky Lakes Wilderness.

Sky Lakes currently contains the following administrative facilities:

**Honeymoon Cabin:** This small log cabin (built in 1942 by the Soil Conservation Service to replace a 1936 snow-survey cabin at South Lake) is used as a base camp and tool cache for the Seven Lakes Basin wilderness ranger and trail crew.

**Blue Canyon Base Camp:** Located near Pear Lake, this temporary facility consists of a tent platform and tool cache for the Blue Canyon wilderness ranger and trail crew.

**Meadow Lake Spring protection fence:** This fence, made of native materials, encloses the spring to protect it from trampling or contamination. It encompasses an area of approximately 70 square feet.

### Management Direction

In general, structures or other improvements will be allowed only when the facility is needed to protect or administer the wilderness resource.

No roads, powerlines, telephone lines, water-flow maintenance structures or other improvements will be permitted except as authorized under section 4(d) of the Wilderness Act of 1964.

If any facilities are installed, they will, insofar as it is feasible, utilize native materials and will be designed to harmonize with the surrounding environment.

All fire rings within a 100-foot perimeter of any lake will be removed. Fire rings in campsites that are not likely to be used in the near future will be removed. Fire rings in desirable campsites, located outside of the 100-foot lakeshore perimeter, where regular use occurs can be retained in order to contain the distribution of visitors and to avoid the proliferation of campsites.

All other improvised facilities constructed by visitors (tables, shelves, shelters, corrals, etc.) will be removed on a regular basis as soon as possible.

All currently existing structures will be documented and evaluated for their potential historic significance as part of the "Section 106 process" under 36 CFR 800. Unless they pose a definite safety hazard, abandoned pre-1950s structures will be allowed to deteriorate naturally. "Removal" of a safety hazard can include simply collapsing a partially-collapsed structure so that no danger exists. Burning, although an option, is not desirable from a cultural resource standpoint.

The wire from early Forest Service telephone lines will be removed; the old insulators in trees (or enamel-on-metal trail signs) can remain in-place as items of historic interest.

## RANGE AND LIVESTOCK USE

### Management Objective

The objective is to allow utilization of forage by commercial livestock (under grazing permits with approved allotment plans) and recreational pack-and-saddle stock in a manner that is compatible with wilderness values and as directed by Congressional guidelines and Forest Service policy.

## Current Situation

Commercial: Portions of three active cattle grazing allotments extend into the Sky Lakes Wilderness. The Big Meadows Allotment (Klamath Ranger District) includes 1,000 acres within the Wilderness, with a total of 60 head. The Rancheria Allotment (Butte Falls Ranger District) includes 12,500 acres within the Wilderness, of which about 3,800 acres are actually used/useable, with a total of 590 head. The Imnaha Allotment (Butte Falls Ranger District) includes 7,000 acres within the Wilderness, of which about 400 acres are used/usable, with a total of 120 head.

The former Halifax Allotment (Prospect Ranger District) included 16,500 acres within what is now the Wilderness, but this acreage was removed from the permit area prior to 1984. Under the Wilderness Act, no renewed commercial grazing will be permitted in this area. No physical barriers to grazing are planned for the Wilderness boundary; permittees will be responsible for keeping their livestock within the allotment.

For the most part, conflicts between grazing and other uses have been minor. Recent range improvements adjacent to the Wilderness have lessened this potential. (See Appendix F of this plan for more detail on allotments.)

## Recreational

Historically, many visitors have used pack-and-saddle stock for access into the Sky Lakes Wilderness. Although in recent years the proportion of visitors using livestock as compared to hikers/backpackers declined to about 15 percent, they still constitute a significant number of users.

Damage to soil, vegetation and visual quality has occurred in localized areas of the Wilderness due to inappropriate methods of tethering or grazing recreational livestock. This has been concentrated adjacent to popular campsites and lakes. Some examples are: loss of ground cover, soil displacement, damaged tree roots caused by tethering stock directly to live trees, and overgrazed circles created by the use of picket ropes. Permitted grazing sites have been identified within some high-use areas by means of small oak signs. (See Section D of this plan for group-size and recreational stock-use standards.)

## Management Direction

Provide for on-going inventory/analysis of range vegetation, with emphasis on base-line studies of range condition and species composition. When appropriate, base range condition on the standards in the Range Analysis Handbook (FSH 2209.21).

Range facilities (corrals, hitching rails, etc.) will be constructed only if absolutely necessary for protection of the wilderness resource. Allotment management plans will address grazing facilities, as well as number of head, season of use, location of use, and other aspects relevant to wilderness management (see FSM 2323 and FSH 2309.12; 22.21.).

There will be no curtailment of existing grazing allotments in Sky Lakes Wilderness simply because the area is designated as wilderness. No new allotments will be established. If sufficient opportunities develop for improved/increased allotment grazing outside of the Wilderness, the wilderness portion of the allotment may, through agreement with the permittee, be removed. (see FSM 2322 for wilderness grazing guidelines.)

There is no historically established use of motorized equipment for range management purposes in Sky Lakes Wilderness, and there is no anticipated need to approve such uses under FSM 2322.22 (i.e., except for true emergency situations).

If conflicts develop between permitted, historically-established commercial grazing and the wilderness resource, the goal will be to resolve the conflict in favor of the wilderness resource, but only insofar as is permitted by the legislation, guidelines, and regulations pertaining to grazing activities in wilderness (see FSM 2322.22).

The public will be made aware of trails open/closed to cattle use. Information will be available at administrative offices and trailheads.

Grazing problems will be reported to the appropriate District Ranger(s). The Ranger will work with permittees to identify problems within the Wilderness and to cooperate in their resolution.

Trailing or driving cattle between allotments is not allowed except for unusual or emergency situations.

Pack and saddle stock must not be grazed/tethered within 200 feet of lakes/ponds or within 50 feet of streams or springs.

Available forage will be used according to the following order of priority: wildlife, permitted livestock, recreation livestock, administrative livestock.

Because forage for pack stock is quite limited, the use of pelletized feed will be encouraged for individual use. It will be generally required for commercial (outfitter guide) or organized group use. Non-native plant species will not be introduced for livestock use; the possibility will be minimized by prohibiting the use of hay and unprocessed grain.

Because forage areas within the Wilderness generally are not dry enough or sufficiently grown for stock use until the first of August, grazing of stock prior to this date generally will be prohibited; grazing within the three high-use areas after this date is permitted only in designated meadows. This information will be included in the trailhead bulletin display.

Tethering of stock directly to live trees for longer than one hour is prohibited and will be discouraged through map information and trailhead bulletin boards. The use of high-lines will be encouraged through similar means.

Unobtrusive signing to wilderness standards may be used along trails in order to direct day-use grazing of pack-and-saddle stock to acceptable areas away from lakeshores (e.g., Cliff Lake). When feed areas have received optimum use, they will be posted to notify stock users that no further grazing at that site is permitted.

In order to protect Ranger Springs, the Middle Fork Basin Trail (#1077) will not be maintained beyond the meadow above the springs. A sign requesting that horses not be taken beyond this point will be posted.

## FISH AND WILDLIFE

### Management Objectives

The management objectives are (a) to provide habitat most conducive to a natural distribution and abundance of native species of wildlife by allowing

natural ecological processes to shape habitat and interactions among species, (b) to cooperate with state and federal fish and wildlife managers so as to meet their goals and objectives in a manner consistent with the preservation of wilderness values, as per section 4(d8) of the Wilderness Act, and (c) to protect habitat critical to survival of threatened or endangered species.

### Current Situation

The Middle Fork and the South Fork of the Rogue River contain the only stream fisheries of any consequence within the Sky Lakes Wilderness. They support small, remnant populations of native cutthroat trout; both streams also have stocked fish that "drift" downstream from the lakes.

The lakes, which were barren of fish until the 1920s, are aerially (helicopter) stocked by the Oregon Department of Fish and Wildlife (ODFW) with eastern brook and rainbow trout. Fishing pressure at some of the more popular lakes is high, and it has contributed to the devegetation of lakeshore zones.

Wildlife species are typical of those found in high-elevation forests of southwestern Oregon. Many of the montane meadows provide summer range for big game species. Large mammals include Roosevelt elk, blacktail deer, black bear, cougar, bobcat and coyote. Smaller mammals include pine marten, fisher, weasel and pika, as well as porcupine, yellow-bellied marmot, Douglas squirrel (or chickaree), golden-mantled ground squirrel, Mazama pocket gopher, western harvest mouse, bushy-tailed woodrat, heather vole and other rodents.

A variety of birds occur in the area; among the most commonly observed species are Clark's nutcracker, gray jay, common raven, mountain chickadee, red-breasted nuthatch, junco, blue grouse, red-tailed hawk, goshawk, Swainson's hawk and osprey. Spotted owl habitat areas (SOHAs) are located within or partially within the Wilderness. Peregrine falcon habitat may exist in the Wilderness. In 1988, the nearest known nest site was in Crater Lake National Park, close enough so that Sky Lakes would be within ranging distance. Bald eagles are relatively common in the upper Klamath Lake vicinity, and some of these birds occasionally visit Sky Lakes to prey on fish. Various species of lizards, frogs and newts are common to Sky Lakes Wilderness; leeches have been reported for North Lake, Dee Lake,

Red Lake, and Island Lake. Insect species are common in season; the early summer mosquito population is a noted feature of the Wilderness.

Hunting is allowed in accordance with State regulations. Big game hunting is heaviest in the northernmost portion of the Wilderness.

### **Management Direction**

Fish stocking will be limited to those waters and to those methods used historically. This includes the use of aircraft, as per direction in FSM 2323.34b.

Numbers of fish and frequency of stocking can be adjusted according to use, if consistent with other resource objectives.

Fish stocking level adjustments will be considered as a useful method of controlling use at Cliff Lake and other places, if monitoring indicates unacceptable resource impacts are occurring.

The Forest Service will continue to coordinate with the ODFW, to ensure that aerial stocking is done during periods of low visitor use.

Native animal species will be maintained. Threatened or endangered species will receive special emphasis. No new non-native species will be introduced.

On-going communication between the Forest Service and ODFW will be necessary in order to exchange information for the development of fishing/hunting seasons, numbers of permits, trapping regulations, and other matters which may affect wilderness use. (See also Section D of this plan, management director item 13f.)

If animal control is necessary (e.g., to protect threatened or endangered species or to prevent serious losses of domestic livestock), Regional Forester approval will be required on a case-by-case basis; cooperate with other agencies (FSM 2610) using methods directed at the offending animal but which present the least impact to wilderness values, other wildlife, and visitors.

Discarding of food or garbage tends to alter the natural feeding behavior of wildlife and will be discouraged through visitor education or regulation.

Through appropriate wilderness fire management planning, fire will play a role in maintaining wildlife habitat diversity (particularly those eco-systems which are fire-dependent) in order to ensure a natural abundance and distribution of native species.

Provide for on-going zoological surveys of the wilderness with emphasis on (a) documentation of rare, sensitive or "wilderness-dependent" species, and (b) baseline studies of species population/distribution and habitat requirements.

## **WATER**

### **Management Objective**

The objective is to preserve wilderness lakes, ponds, springs and streams in a natural condition, with minimal modification or human-caused contamination.

### **Current Situation**

Sky Lakes Wilderness is aptly named; it contains over 200 lakes or smaller bodies of water. It comprises the headwaters of the Middle Fork and South Fork of the Rogue River as well as the upper watersheds of other important streams in both the Rogue River and Klamath Basin drainage systems.

No power withdrawals exist within the Wilderness. A small three-to-five-foot high log dam at the outlet of South Lake, built sometime prior to 1973 to improve fish habitat, is the only water impoundment.

Water flowing from Sky Lakes Wilderness is used for domestic consumption (a portion of the City of Medford's Big Butte Springs Watershed hydrologic boundary extends into the Wilderness on the western half of Mount McLoughlin) as well as for irrigation, power generation (i.e., Pacific Power and Light Company's Prospect #3 powerhouse on the Middle Fork, six miles downstream from the wilderness boundary), livestock, recreation and other uses. The Soil Conservation Service formerly maintained a snow survey course in the Seven Lakes Basin, but snow moisture content is no longer measured by the SCS at this location.

An Environmental Protection Agency study of acid-raid pollution of montane lakes found several lakes in the Wilderness to be remarkably free of atmos-



pheric pollutants. No serious, direct human-caused water quality problems have been documented. No bacteriological testing has been done, but generally the water quality is believed to be high. Although no cases of *Giardia* contamination in Sky Lakes have been documented, its occurrence in the area is likely.

Water yields from the area will remain essentially the same over the long term; present uses of the water will continue. Waters may become more polluted due to atmospheric pollutants or direct human use.

### Management Direction

As called for by the Clean Water Act of 1970, the Water Quality Act of 1987, and the Oregon Water Quality Standards of 1981 (Ore. Adm. Rules, Chap. 340, Div. 44 - DEQ), water management in the Sky Lakes Wilderness will strive for non-degradation of quality.

Except as provided for in section 4(d)(4) of the Wilderness Act, watersheds will not be altered or managed to provide increased water quantity, quality or timing of discharge.

Provide for on-going inventory of hydrological data as a regular part of wilderness management tasks in order to help identify base-line parameters of water quality in Sky Lakes Wilderness.

## VEGETATION

### Management Objectives

The objectives are (a) to maintain the system of natural processes that governs the distribution of plant communities, (b) to ensure that natural biotic communities remain undisturbed except by those natural processes, and (c) to protect threatened/endangered species.

### Current Situation

Terrestrial vegetation in Sky Lakes Wilderness occurs in three major forested zones, with various other plant communities endemic to meadows, bogs, brushfields and other small areas. (The Wilderness consists of a complex mosaic of over a dozen specific plant associations which have been identified and mapped by Forest Service ecologists; the

broader "zone" concept is best used for this plan's general discussion.) The lowest and smallest elevation zone in Sky Lakes, confined largely to the Middle Fork (Rogue River) Canyon, is the mixed-conifer zone which contains dense stands of Douglas-fir, white fir and incense-cedar. The next zone consists of the true fir zone, with often near-pure stands of noble fir/Shasta red fir. The highest and most extensive vegetation zone in the Wilderness is the sub-alpine zone, dominated by mountain hemlock with noble fir/Shasta red fir at the lower fringes and whitebark pine at timberline on the highest peaks. Lodgepole pine stands are most common along lake shores, bogs and on the pumice soils of the Oregon Desert. The lakes, ponds, bogs and streams of the Wilderness support an aquatic flora that is very little known at this time.

Most of the Wilderness vegetation is in a natural condition, unaffected by human activity (except for the exclusion of wildfire since about 1910). However, natural vegetative cover has been altered significantly at popular lakeshores, campsites, grazing areas and along segments of the trail system. Most noticeable is the reduction in the cover of *Vaccinium scoparium* (grouse huckleberry), *V. membranaceum* (thin-leaf huckleberry), and *Phyllodoce eripetiformis* (red mountain heather), brittle shrubs with an erect growth habit that are highly susceptible to damage from trampling. These three shrubs dominate the area adjacent to most of the lakes. (At Cliff Lake, for example, 15 percent of the vegetative cover within 200 feet of the lake has been denuded as a result of trampling.) Also apparent is damage to trees, both by cutting/chopping for firewood and by inappropriate stock tethering methods.

No currently-listed or endangered plant species are known for the Sky Lakes Wilderness. "Sensitive" species documented for the Wilderness include: *Arabis suffrutescens* S. Wats. var. *horizontalis* (Greene) Rollins, *Collomia mazama* Coville, and *Erythronium klamathense*. A number of others are suspected to occur.

### Management Direction

Provide for on-going botanical (terrestrial and aquatic) surveys of the Wilderness by the Forest Service and cooperating researchers, with emphasis on (a) documentation of rare or sensitive species, (b) base-line studies of plant association distributions and characteristics, and (c) determina-

tion of the prehistoric role of fire in creating/maintaining various plant associations.

Protect sensitive species. Projects such as trail construction and campsite/grazing area designations will provide for preservation of sensitive plant species.

Non-native plant species will not be deliberately introduced. The possibility of accidental introduction will be minimized by prohibiting the use of hay and unprocessed grain as supplemental feed and by encouraging the use of processed, weed-free feeds (i.e., pelletized rations). (See Section F of this plan, item 10.)

Rehabilitate (naturally or with native species) areas of excessive damage to vegetation resulting from overuse.

Assess need for further restrictions at Cliff Lake, Margurette Lake, Heavenly Twins Lakes, and Blue Lake (e.g., prohibit campfires; prohibit overnight camping) by 1990; regularly reassess the decision.

## **GEOLOGY AND SOILS**

### **Management Objectives**

The objectives are to inventory/analyze the natural geological and soil-formation processes present in the volcanic terrain of Sky Lakes Wilderness, and to interpret this information to interested segments of the public.

### **Current Situation**

In terms of geologic time, the landforms of the Sky Lakes Wilderness are quite young, the oldest rocks having been formed as part of the High Cascades' volcanic buildup between five and three million years ago. During the Pleistocene epoch or "Ice Age," the composite volcanoes of Mount Mazama and Mount McLoughlin began their initial buildup less than one million years ago. On their north and east slopes, Mount McLoughlin and other high peaks bear the scars of glacial ice. Like most of the drainages within Sky Lakes Wilderness, Seven Lakes Basin and the deep canyon of the Middle Fork of the Rogue River were carved by the massive ice fields which covered the highest elevations of

the Cascades. With the onset of warmer climate, most local glaciers disappeared between 15,000 and 12,000 years ago.

Volcanic activity of that period included final eruptions of Mount McLoughlin, minor lava eruptions and mudflows at Big Bunchgrass Butte and Imagination Peak, and formation of a chain of cinder cones extending north from Goosenest Mountain.

The most recent and by far the most catastrophic geologic event happened about 6,800 years ago when Mount Mazama exploded and collapsed, forming the caldera of Crater Lake. Some of the vast amount of rock and ash which was thrown into the air landed in the northern portion of Sky Lakes Wilderness, creating the pumice-covered "Oregon Desert."

The variability of moisture, vegetation and parent material have contributed to the distribution of soil types in Sky Lakes Wilderness. Most of the soils are formed from andesite or basalt bedrock or from compacted glacial till derived from these materials. Soils tend to be relatively shallow, sandy/gravelly/cobbly loams. Because of the generally gentle topography, erosion problems are limited to certain trail segments. Soil compaction and devegetation, however, have been severe along some lakeshore margins.

### **Management Direction**

Provide for on-going geological and soil survey of the Wilderness by the Forest Service and cooperating researchers, with emphasis on documentation of natural soil conditions.

Disseminate information about volcanic landforms and geological history of the Wilderness to the public through maps, brochures, and off-site interpretation.

## **MINERALS AND ENERGY**

### **Management Objective**

The objective is to assure that any potential mining or energy leasing activities permitted by the Wilderness Act of 1964 are conducted so as to create the least possible impact upon the wilderness resource.

## **Current Situation**

Due to the mineral character of the area's volcanic geology, there has been no history of mining within Sky Lakes Wilderness. The U.S. Geological Survey inventoried both the locatable mineral and the geothermal potential of Sky Lakes and found them to be low to non-existent. According to Bureau of Land Management mining claim records, in 1981 Jay and Mike Hughes filed notice of location for the "Hogback" lode mining claim (sw1/4 of Section 17, T35S, R5E, WM; west of Island Lake), but no assessment work was ever recorded and the claim became invalid. (NOTE: it is possible that the BLM records give an erroneous legal location for this claim; Range 5 West; near Grants Pass, OR, seems more likely.) In essence, the question of mining is now moot due to the passing of the 1983 deadline for mineral entry or mineral leasing in this area. Section 4(d) of the Wilderness Act of 1964 permits water storage, power transmission lines and related energy development under special authorization of the President. No such facilities are considered likely for Sky Lakes.

## **AIR QUALITY**

### **Management Objective**

The objective is to comply with requirements of the Clean Air Act so as to preserve clean, healthful air quality within the Sky Lakes Wilderness.

### **Current Situation**

No surveys to determine air quality in Sky Lakes Wilderness have been undertaken. All wildernesses created by the 1984 legislation are automatically designated as Class II air quality areas as defined by the Clean Air Act. However, all wildernesses are being reviewed by the State of Oregon for Class I redesignation. Air quality within the Sky Lakes Wilderness is and will continue to be primarily affected by activities (world-wide fossil-fuel power generation, slash burning, wildfire, etc.) outside of the Wilderness. Effects from natural fire occurring within Sky Lakes Wilderness are not considered when meeting provisions of the Clean Air Act. Wildfire or prescribed fire within the Wilderness can affect visibility for variable periods of time.

## **Management Direction**

Provide for the identification of relevant indicators and the gathering of base-line data relative to wilderness air quality, visibility and other air quality-related values, and for the on-going monitoring of those indicator levels (see FSM 2323.6).

Cooperate with the State of Oregon in its study of air quality relative to wilderness.

When appropriate, determine potential air quality impacts of proposed facilities (in or outside of wilderness) and make recommendations to appropriate air quality management agencies.

Through an approved wilderness fire management plan, manage smoke from prescribed fire (in or outside of wilderness) in a manner that causes the least impact to air quality-related values.

## **VISUAL QUALITY**

### **Management Objective**

The objective is to preserve the scenic, visual quality of Sky Lakes Wilderness so that it retains its natural appearance.

### **Current Situation**

The visual quality within the area has been only slightly altered from its natural state. In 1940, the Civilian Conservation Corps built about a mile of low standard truck road along the Big Ben Creek-Fantail Creek ridge (the "Hemlock Road") in order to harvest Christmas trees. In the 1950s-1960s, the Forest Service harvested small areas of timber on the north slope of Blue Rock, in upper McKee Basin, and in the headwaters of Sevenmile Creek. However, most changes have resulted from recent trail construction and camping (devegetation, cutting of trees for firewood and "camp furniture," etc.). A few vista points (Devil's Peak and Mount McLoughlin are the most popular) provide long-range panoramas which show the effects of logging and road building adjacent to and surrounding the Wilderness. Most places give "interior," short-distance views of lakes and dense forest within Sky Lakes Wilderness itself

### **Management Direction**

The visual quality objective (VQO) for Sky Lakes Wilderness is Preservation (i.e., only ecological change is permitted).

Campsites, trail heads and trails should, when possible, be located so as to avoid low visual absorption capability (VAC) areas (e.g., lake margins, meadows, open slopes) and be sited so as to take advantage of vegetative and topographic screening.

Needed facilities such as trail bridges will be of native materials.

Provide for regular clean-up of litter and trash dumps.

## **FIRE**

### **Management Objectives**

The objective is to allow fire in Sky Lakes Wilderness to play, as nearly as possible, its natural, ecological role -- while, at the same time, not compromising public safety or resource values outside of the Wilderness; prescribed natural fire will be authorized by a wilderness fire management plan (an amendment to this implementation plan) as approved by the Regional Forester. The overall objective of wildfire suppression in the Wilderness will be put out fires, using an appropriate fire suppression strategy. Any strategy selected should be sensitive to wilderness values.

### **Current Situation**

Based on the accounts of early surveyors and timber cruisers, large fires have been a major factor in the forests of southern Oregon's High Cascades for centuries. Beginning with the disastrous fire season of 1910, the Forest Service has actively suppressed fires in what is now the Sky Lakes Wilderness for the past seven decades. (In 1910, the Cat Hill Fire burned several thousand acres within the Wilderness.) As soon as fires were detected, fire-fighting crews rode horses or hiked into the area; more recently, aircraft have brought hand crews, smoke-jumpers, and occasionally retardant drops. Fires were controlled as soon as possible. With the ad-

vent of the Modified Suppression Policy and the establishment of the Sky Lakes Wilderness, controlling all fires has been modified to the "appropriate suppression response." The new policy calls for fire suppression strategies that are based on actual values at risk, life and property threatened, regional fire situation, cost effectiveness, and fire behavior parameters.

In 1986, a small fire near McKie Meadow was permitted to burn, with periodic monitoring, and then was suppressed. During the 1987 fire season, a number of lightning-caused fires occurred in Sky Lakes Wilderness; ranging in size from less than one acre to approximately 14 acres in extent, the entire burned area aggregated well under 50 acres. Because of the serious fire situation throughout the area, Forest Supervisor approval was obtained for use of power saws, helicopters and aerial retardant drops for several of those fires. A fire management plan for Sky Lakes Wilderness is being prepared which will provide increased latitude for allowing natural fire processes to occur.

For the period 1960 to 1979, 140 fires were recorded in Sky Lakes. The total burned area for all of these fires was five acres. This small acreage figure supports the logic of switching from "total control" of all fires to a case-by-case analysis which considers wilderness values.

### **Management Direction**

Use of prescribed fire in the Sky Lakes Wilderness will be based on fire's natural ecological role. Although additional beneficial effects may result from a decision to use prescribed fire, fire in the Wilderness will be used only to meet approved wilderness fire management objectives.

A detailed wilderness fire management plan, to be included as an appendix to this implementation plan, is being prepared which discusses when, where, how, and if prescribed fire will be used. The plan will also detail how fires will be suppressed, what techniques and equipment will be used, and what steps, if any, will be taken to rehabilitate the area afterward.

Coordinate wilderness fire management planning and activities with National Park Service (Crater Lake National Park).

Suppress wildfires within the Wilderness in accordance with direction in FSM 5130 and FSM 2324.22 R-6 Supp. 88 (6/87).

Utilize "light hand on the land" techniques. In order to avoid undesirable impacts from suppression activities, minimum standards for fireline width are used: "just enough" to halt a fire's spread. Whenever feasible, helispots and spike camps will be located so as to avoid impact to important wilderness values (e.g., locations at lakeshores should be avoided whenever possible). Use of natural barriers is encouraged in lieu of firelines. Cut only those trees necessary to stop the fire or provide for human safety. Mechanical aids such as chain saws and water pumps are allowed when overall impacts are assessed to be less with their use (they can be used only with specific approval of the Forest Supervisor; the same is true for aircraft). Heavy equipment, such as tractors, is permitted only with Regional Forester approval.

## SCIENTIFIC VALUES

### Management Objective

The objective is to conduct, provide for, and encourage scientific study that helps establish base-line data on wilderness resource conditions, that is dependent on a natural setting, and/or that seeks to explain natural phenomena or social behavior in wilderness.

### Current Situation

The Sky Lakes Wilderness provides excellent opportunities for scientific research and observation in a natural setting. Currently, the Environmental Protection Agency is conducting part of a long-term study of acid rain levels in western United States montane lakes in Sky Lakes Wilderness. The Wickiup Springs area and the Cherry Creek Basin area have been identified as filling terrestrial vegetation "cell" needs by Forest Service ecologists; these may be designated as Research Natural Areas or otherwise be studied as part of long-term ecological research.

Published past research projects within the Sky Lakes Wilderness include the following:

"The Occurrence of Neotenic Rough-skinned Newts, *Taricha granulosa*, in Montane Lakes of Southern Oregon"

Author: Michael S. Marangio, Louisiana State University

Date: circa 1975

Subject: Describes in detail the distribution and occurrence of neotenic *Taricha granulosa* in the southern Cascade Mountains of Oregon. A preliminary experiment on the effects of thyroxin on gill tissue is also described. Location: 19 lakes (several in each basin on Rogue and Winema National Forests).

"Partial Flora of the Seven Lakes Basin"

Author: Dr. Frank Lang, Southern Oregon State College

Date: June 1974

Subject: Summary of the flora of Seven Lakes Basin "Lakeshore Vegetation of Sky Lakes Wilderness Study Area"

Author: Constance Rutherford, Humboldt State University

Date: June 1984

Subject: Describes in detail the vegetation within the lakeshore habitat of the Sky Lakes area. Suggests environmental factors that contribute to variability in lake sites. Discusses how these factors interact to produce a series of lakes with rather individual expressions of a potential lakeshore vegetation.

Location: Seven Lakes Basin and Blue Canyon Basin

"Western Lake Survey, Phase I: Characteristics of Lakes in the Western United States."

Author: D. H. Landers et al; J. M. Eilers et al; U.S. Environmental Protection Agency

Date: January 1987

Subject: Population descriptions and physico-chemical relationships (volume 1) and data compendium for selected physical and chemical variables (volume 2). (Contribution to the National Acid Precipitation Assessment Program.)

### Management Direction

Non-Forest Service research projects generally require Forest Supervisor approval (FSM 2324.04c). Only those applications for research projects that are unobtrusive, wilderness-dependent, and compatible with the goals and objectives of this plan will

be recommended for approval. Research activities that adversely affect the experience of wilderness visitors or that conflict with other management objectives will not be recommended for approval.

Identify appropriate subjects of research and develop a coordinated program (using both Forest Service specialists and researchers from other agencies/institutions) for the establishment of baseline resource information that helps define wilderness character and natural conditions. Research that will help resolve wilderness resource management problems will be given highest priority.

All research projects which require public contact, specimen collecting, or ground reference marking, or which require exemption from any regulations will be conducted under special use permit. Any archaeological excavations will also require an Archaeological Resource Protection Act (ARPA) permit. Copies of any scientific reports or publications resulting from research projects should be provided to the Forest(s) involved.

## INSECTS AND DISEASES

### Management Objective

The objective is to allow natural processes of forest insects and disease to operate without human intervention within the Sky Lakes Wilderness to the extent that valuable resources outside the Wilderness are not substantially threatened.

### Current Situation

Sky Lakes Wilderness is famous for its seasonally heavy population of mosquitos. The area has not been surveyed for commercially harmful insects and diseases. It is likely that common diseases present in the surrounding forest are present. No special problems have been noted. Insects and plant diseases associated with wildlands are a natural part of the wilderness environment.

### Management Direction

Provide for inventory and on-going monitoring of insect and disease conditions in the Wilderness; report any unusual occurrences, endemic or epidemic situations.

Insect or disease outbreaks will not be artificially controlled unless it is necessary to protect timber or other resources outside the wilderness. (FSM 2324.1)

If control measures are necessary, they shall be carried out by measures which have the least adverse impacts on the wilderness resource.

Insect or disease suppression projects in wilderness shall be based on the factors set forth in FSM 5234 and be approved by the Chief or Regional Forester (see FSM 2324.04a & b, through 2324.13). Conduct analysis in accordance with FSM 3430.

As long as only methods or equipment that are compatible with the wilderness resource are used, surveys to monitor insects or disease will be conducted in the same manner as prescribed for unclassified forest lands.

## CULTURAL RESOURCES

### Management Objectives

The objectives are to recognize that cultural resources within the Sky Lakes Wilderness are a valuable, non-renewable resource, and to inventory, evaluate, protect and enhance significant cultural resources in compliance with both historic preservation law and Forest Service wilderness policy.

### Current Situation

The human past of the Sky Lakes Wilderness is described at length in "A Cultural Resource Overview of the Sky Lakes Wilderness Study Area" (1976, CR Job RR-20) and in *Prehistory and History of the Rogue River National Forest* (1980, CR Job RR-280, see pages 109-125, 132-133, 141-142, 149-150).

Because of its high elevation, relative inaccessibility and general lack of important economic resources, the land contained in Sky Lakes Wilderness has been "peripheral" to most human activities during both prehistoric and historic times. Nevertheless, the area has been utilized for various purposes over the past several thousand years. From early summer through early fall, small groups of Upland Takelma, Southern Molalla and particularly Klamath Indians ranged along the crest of the Cascade

Range, hunting game and gathering huckleberries. Klamath youths would sometimes come to make their "vision quest" (a religious experience during which one fasted in solitude and sought a spiritual vision) at mountain lakes and high peaks in the Cascades. However, the short season of mild weather and the very limited amount of food plants and game animals did not encourage native American groups to remain in the area for other than brief episodes of transitory use.

The sparse prehistoric evidence so far reported for Sky Lakes Wilderness consists of several isolated artifacts (such as obsidian projectile points) small scatters of obsidian flakes from retouching of stone tools, vision-quest sites marked by piled rock cairns or circular enclosures on the summits of prominent peaks, and one possible aboriginal petroglyph site on the north slope of Mount McLoughlin.

During the 1850s, early white settlers of the Rogue River Valley made their first forays into what is now Sky Lakes Wilderness. Hunting, berrypicking and sheep grazing became established summertime uses during the latter half of the 19th century. Trapping of marten and other high elevation furbearers occurred in the winter. A few trappers' cabins were built within the Wilderness but little or no evidence remains at these sites.

During the early 20th century, the newly-established Forest Service developed the area with trails, look-outs and seasonal guard stations. Aside from the trails, many of which continue to be used, very little evidence of early-day Forest Service activities remains. Cattle replaced sheep as the predominant livestock during the 1920s and 1930s. Recreational use of the Sky Lakes area also increased at this time, due to fish stocking of the formerly barren lakes as well as construction of the Oregon Skyline Trail and other recreational trails/facilities.

To date, Sky Lakes Wilderness contains two cultural resources which have been formally identified as historically significant: the Jacksonville-Fort Klamath Military Wagon Road, listed on the National Register of Historic Places (many portions of this 1863-1909 travel route are visible along the Twin Ponds Trail) and the Waldo Tree (eligible for the National Register). (This inscribed Shasta red fir bears the carved names of early-day Oregon conservationist Judge J.B. Waldo and his four companions who journeyed south along the crest of the

Cascades from Waldo Lake to Mount Shasta in 1888.) The McKie Shelter, formerly eligible for the National Register, has been removed from the listing due to its collapse and advanced deterioration.

### Management Direction

Inventory, evaluate and manage all cultural resources according to the Section 106 process. Establish priority for field inventory based on proposed trail development, campsite development or other land-disturbing activities; also provide for on-going c.r. inventory of "non-project" areas, with the objective of total inventory of Sky Lakes Wilderness. Utilize opportunities for qualified volunteers and others to accomplish cultural resource survey in the Wilderness.

Provide on-going cultural resource awareness training to wilderness rangers and trail crews.

Interpretation of cultural resources in the wilderness will be done through brochures and maps. Signs will not be provided for on-site interpretation.

If natural deterioration or removal is determined to be the management prescription for a designated resource, this will be allowed only after thorough photo-recording and other documentation has been completed.

Newly discovered historic and archaeological sites, including isolated prehistoric tools or other evidence, will be noted on a map and promptly reported to the appropriate Forest archaeologist.

If a National Register-eligible/listed structure is managed through an approved schedule of on-going maintenance, any maintenance/repair activities will be done so as to have minimum impact on wilderness values (e.g., use of pre-weathered shakes).

Due to sensitive cultural values, no trails will access documented aboriginal vision-quest cairn sites; no site-specific resource interpretation of these cultural features (i.e., on maps, etc.) will be provided.

Wilderness rangers and other field personnel should regularly monitor the condition of the Waldo Tree (e.g., tree mortality, vandalism to inscription) so that if need be the section of the tree bearing the inscription can be removed and preserved for historical display purposes in a museum-type setting.

## COMMUNICATION AND EDUCATION

### Management Objectives

The objectives are: (1) to disseminate accurate scientific and educational information about the Sky Lakes Wilderness to visitors and other interested persons; (2) to increase public awareness of wilderness management goals and objectives; (3) to encourage acceptance and use of low-impact camping techniques; (4) to achieve compliance with regulations and special orders with a minimum of resistance and ill feeling on the part of visitors; and (5) to direct non-wilderness types of uses to alternative areas through on-going orientation of visitors and Forest Service employees to the wilderness philosophy.

### Current Situation

Although Sky Lakes has been designated as wilderness only since 1984, it has been managed to wilderness standards since its classification as a Wilderness Study Area in 1973. Most visitors are aware of the area's legal status and, consequently, motorized use and other obvious violations are quite rare. With the recent and growing popularity of all-terrain bicycles, some intrusions by mountain bikers has occurred, but this problem seems to have lessened through on-going contact with bicycle dealers and direct education via posters at trailheads.

Most violations of wilderness regulations or wilderness etiquette have involved camping and/or tethering pack and saddle stock too close to lakeshores and cutting or damaging trees and other vegetation.

Route descriptions for trails in Sky Lakes Wilderness are available in various commercial publications as well as in the Pacific Crest National Scenic Trail maps (Oregon central and southern portions) and the Sky Lakes Wilderness map. The Forest Service maps and many of the commercially available books include advice on camping and traveling

techniques to reduce visitor impact on the Wilderness.

As recreational use increases, effective and timely information and education efforts will be crucial in gaining public acceptance and support for management objectives.

### Management Direction

The content and timing of major public announcements, news releases and other media contact efforts will be reviewed by both Forest Supervisors' Offices and by the Butte Falls and Klamath Ranger Districts. News releases and other efforts will concentrate on Jackson and Klamath Counties.

Printed materials and other public outreach projects relating to Sky Lakes will contain information on wilderness management goals. Authors/publishers of trail guides and other books will be encouraged to include low impact/no-trace camping, group-size limits, camping/grazing restrictions, and other management messages in relevant publications.

Public involvement and visitor awareness programs will be used in solving management problems and to help gain acceptance of solutions.

Wilderness rangers will participate in the education effort as a major part of their duties, particularly during periods of peak use. Consistent orientation/training will be provided to all wilderness rangers. The Butte Falls Ranger District and the Klamath Ranger District will coordinate orientation sessions.

Wilderness rangers, Forest Service receptionists and other employees who have contact with the public will be well informed about wilderness regulations, management objectives and, insofar as possible, current conditions in the Wilderness. In public contact situations, Forest Service personnel will stress the need to shift non-wilderness types of activities to alternative areas, encourage suitable wilderness behavior, and create additional awareness and appreciation of wilderness values. Contacts with visitors will be done in a manner to minimize the effect on solitude or sense of adventure.



## SKY LAKES WILDERNESS MONITORING PLAN

Below is a basic monitoring plan designed to assess human-caused, largely recreation-related impacts in the Wilderness. The indicators are related to criteria in FSM 2320.2, R-6 Supplement 81. Inter-Forest standards, specific to the Wilderness, may be developed and used. (The Bob Marshall Wilderness Action Plan can help in developing detailed

monitoring procedures.) The kinds, methods, and frequencies of monitoring will probably be modified during the initial phase of the monitoring program, and this plan will require regular updating. However, the program should aim for long-term procedural stability so that a solid body of accurate, comparable data is accumulated.

Indicator	Standard	Inventory Method	Sampling Procedure	Frequency
Party Size	8 people/12 head stock	Visual Count	Count & record on patrols	Each patrol
Encounters	As per specific WRS (Supp. 81) & Forest Standards	Visual Count	Count & record on patrols	Each patrol
Campsite Density	As per specific WRS (Supp 81) & Forest Standards	Visual Count	Count & record on patrols	Each patrol
Campsite Location	100 feet from lakes, streams and trails	Visual Observation	Count & record on patrols	Each patrol
Soil Compaction	As per specific WRS (Supp. 81)	FT. <sup>2</sup> measurement	Measure selected campsites	Every 3-5 years
Campsite Condition	Per Supp. 81 & Forest Standards	L.A.C. Indicators	Inventory	Every 3-5 years
Trail Condition	As per maintenance level & safety	Visual Observation	Record on patrol	Each patrol or as needed (periodic trail condition survey at least every 5 years)
Grazing Areas	200 feet from lakes & streams; out-of-sight from trails	Visual Observations	Count & record on patrol	Each patrol, or as needed
Water Quality	To be determined	Fecal coli-form/giardia counts	Laboratory methods	Early & late in use season, least every 3-5 years

The above list shows a strong emphasis towards measurement of recreation-related impacts; however, inventory, analysis, and on-going monitoring of all resource conditions (whether or not they are directly impacted by human use) is a major objective of wilderness management. An important part of the monitoring plan for Sky Lakes Wilderness will be (a) to identify significant parameters for various resources (e.g., parameters indicative of air quality and related values, water chemistry and quality, soil condition, biotic communities, fire effects, archaeo-

logical evidence of prehistoric land-use patterns), (b) to select measureable indicators that are capable of showing resource change over time (e.g., visibility from selected viewpoints, water acidity and contamination levels, population and distribution of indicator species, etc.), and (c) to implement a base-line inventory and on-going monitoring program for these resources. Development of this program will be given high priority in management planning for the Red Buttes and Sky Lakes Wildernesses.

## SKY LAKES WILDERNESS

## ACTION ITEMS/IMPLEMENTATION SCHEDULE

The Implementation Plan identifies management direction for the various resources. The following list identifies some of the necessary actions, the re-

sponsible party and the target date for completion in order to achieve the management objectives. This schedule will be revised annually.

Action	Responsibility	Target Date
Resource Inventory/Monitoring Program 1. Develop a coordinated effort and design an integrated program for scientific base-line data inventory and on-going resource monitoring (See Appendix A).	SO	By 1991
2. Implement annual or regular data-gathering and monitoring procedures, utilizing FS specialists, technicians, wilderness rangers, cooperating agencies/institutions, and volunteers.	Districts/SO	By 1992-3
Recreation 1. Collect and analyze monitoring data. 2. Revise monitoring plan if necessary.	Districts/SO Districts/SO	Annually Plan
Vegetation 1. All projects where vegetation may be affected will be surveyed for sensitive plants prior to implementation. 2. Rehabilitate impacted areas.	Districts Districts	On-going As needed
Visual Quality 1. Remove all unnecessary visual intrusions (improvised camp structures, trash).	Districts	On-going
Cultural and Historic Resources 1. All project areas such as trail construction, trailhead development, and campsites will be inventoried before project implementation. 2. Eligible sites will be nominated to the National Register of Historic Places. 3. Develop management schedules for significant sites in consultation with the State Historic Preservation Officer.	Districts SO Districts/SO	On-going As discovered As needed
Access Roads 1. All roads entering the area will be blocked. 2. The need for rehabilitation will be analyzed	Districts Districts	As needed Annually
Trails 1. Maintain trails in accordance with management objectives.	Districts	On-going

SKY LAKES WILDERNESS IMPLEMENTATION PLAN

Action	Responsibility	Target Date
Trailheads 1. Monitor trailheads for use and environmental impacts. 2. Provide adequate user information at trailheads each season.	Districts  Districts	On-going  On-going
Signing 1. Current signs will be replaced with signs which conform to wilderness standards	Districts	On-going
Administration 1. The Action Item Schedule will be updated annually.	Districts/SO	Annually
Communication and Education 1. Make informational and educational materials regarding wilderness available to the public; update wilderness map.	Districts/SO	On-going, as needed

## SKY LAKES WILDERNESS TRAIL OBJECTIVES

### Butte Falls Ranger District

Active Trails	Trail Number	Non-Wild Miles	Wild Miles	WRS Class	Difficulty Level	User Type	Maint. Priority
Alta Lake	979	0.1	6.2	PRIM	MOST DIFF	H	2
Bigfoot Springs	990	0.0	0.2	PRIM	MORE DIFF	H	2
Blue Canyon	982	0.0	5.2	SPRIM/PRIM	MORE DIFF	H-S	1
Cat Hill Way	992	0.0	3.4	SPRIM/PRIM	MORE DIFF	H	2
Cliff Lake	983	0.0	0.3	PRIM	MORE DIFF	H-S	1
Devil's Peak	984	0.0	1.3	PRIM	MOST DIFF	H-S	1
Halifax	1088	0.0	3.2	PRIM	MOST DIFF	H-S	2
Jack Springs	1086	0.0	0.6	PRIM	MORE DIFF	H	2
King Spruce	980	0.0	2.8	SPRIM/PRIM	MORE DIFF	H	2
Lake Ivern	994	110	2.0	PRIM	MORE DIFF	H	2
Lost Creek	3712	0.0	0.1	SPRIM/PRIM	MORE DIFF	H	2
Lucky Camp	1093	0.0	1.6	PRIM	MOST DIFF	H-S	2
McKie	1089	0.0	5.0	PRIM	MORE DIFF	H-S	2
Meadow Lake	976	0.0	1.1	PRIM	MOST DIFF	H	2
Middle Fork	978	1.0	7.5	PRIM	MOST DIFF	H-S	2
Middle Fk Basin	1077	0.0	0.9	PRIM	MORE DIFF	H	2
Mudjekeewis	1085	0.0	5.1	PRIM	MOST DIFF	H-S	2
PCT	2000	0.0	18.9	PRIM	MORE DIFF	H-S	1
Red Blanket	1090	0.0	3.9	PRIM	MOST DIFF	H-S	1
Red Lake*	987	0.0	2.8	PRIM	MORE DIFF	H-S	2
Seven Lakes	981	0.0	6.1	SPRIM/PRIM	MOST DIFF	H-S	1
South Fork	986	0.3	4.8	PRIM	MOST DIFF	H	2
Stuart Falls	1078	0.0	4.0	PRIM	MORE DIFF	H	1
Tom & Jerry	1084	0.5	4.5	PRIM	MOST DIFF	H-S	2
Twin Ponds	993	0.4	2.9	PRIM	MOST DIFF	H	2
<b>TOTAL ACTIVE MILES</b>	<b>2.3</b>	<b>94.3</b>					

\* Red Lake Tr. now includes previous No-Name Tr., #987A

Deactivated Trails	Trail Number	Non-Wild Miles	Wild Miles	WRS Class	Maint. Priority
Big Bunchgrass	1089A	0.0	2.0	PRIM	3
Crater	975	0.0	2.4	PRIM	3
Devil's View	983	0.0	0.7	PRIM	3
Hemlock Lake	985	1.0	5.3	PRIST	3
Lucky Camp	1083	0.0	2.4	PRIM (T.head to active sec.)	3
Mudjekeewis	1085	1.5	1.2	PRIM (T.head to active sec.)	3
Onion Springs	977	0.6	3.3	PRIST	3
Red Lake	987	0.0	5.7	PRIST(T.head to active sec.)	3
Wickiup	986	0.0	3.7	PRIST	3
Wickiup Meadow	989	0.0	0.2	PRIST	3
<b>TOTAL DEACTIVATED MILES</b>	<b>3.1</b>	<b>26.9</b>			

## Klamath Ranger District

Trails	Trail Number	Non-Wild Miles	Wild Miles	WRS Class	Difficulty Level	User Type	Maint. Priority
Badger Lake	3759	0.3	4.9	SPRIM	EASY	H-S	2
Cedar Springs	3700	0.5	7.9*	PRIM	MORE DIFF	A	3
Cherry Creek	3708	0.7	4.6	PRIM	MOST DIFF	H-S	2
Cold Springs	3710	0.5	2.2	SPRIM	EASY	H-S	2
Divide	3717	0.0	2.9	PRIM	MOST DIFF	H-S	2
Donna Lake	3734	0.0	0.8	PRIM	EASY	H	2
Dry Creek	3701	0.2	2.8*	PRIM	MORE DIFF	A	3
Horse Creek	3741	0.0	4.0*	SPRIM	EASY	A	3
Lost Creek	3712	0.4	1.1	PRIM	EASY	H	2
Mt. McLoughlin	3716						
--THead to PCT		0.2	0.9	SPRIM	MORE DIFF	H	1
--PCT to TLine	0.0	2.8	SPRIM	MOST DIFF	H	1	
--TLine to Top		0.0	1.3	SPRIM	MOST DIFF	H	1
Nannie Creek	3707	0.2	4.1	PRIM	MOST DIFF	H-S	2
PCT	2000	0.0	14.2	PRIM	MOST DIFF	H-S	1
		0.9	7.5	SPRIM	MORE DIFF	H-S	1
Sevenmile	3703	0.2	1.7	SPRIM	MORE DIFF	H-S	1
Puck Lakes	3706	0.0	6.4	PRIM	MOST DIFF	H-S	2
Sky Lakes	3762	0.0	5.5	PRIM	MORE DIFF	H-S	2
			0.5	SPRIM	MORE DIFF	H-S	
Snow Lakes	3739	0.0	2.3	PRIM	MOSE DIFF	H	2
S.Rock Creek	3709	0.0	1.6	SPRIM	EASY	H-S	2
Twin Ponds	3715	0.3	2.2	SPRIM	EASY	H-S	1
Wickiup	3728	0.0	2.0*	PRIM	MORE DIFF	A	3
<b>TOTAL MILES</b>		<b>4.4</b>	<b>84.2</b>				

**Legend:** H = Hiker  
S = Stock  
A = Adventure (de-activated trail); \* miles not counted in "active trail" mileage.

**Trail Maintenance Priorities:****1 = PCT and High-Use Trails:**

- logging-out and routine drainage maintenance completed annually;
- logs are left as appropriate;
- brushing, treadwork, and sluff removal performed as needed.

**2 = Most Other Active Trails:**

- logging-out completed annually;
- logs are left as appropriate;
- routine drainage maintenance completed at least biennially;
- brushing, treadwork, and sluff removal performed as needed.

**3 = Deactivated Trails/Adventure Trails:**

- drainage and trail obliteration monitored at least biennially until trail becomes naturalized (and periodically thereafter);
- drainage maintenance performed as needed to prevent erosion.

## SKY LAKES WILDERNESS RANGE ALLOTMENTS

Approximately 36,160 acres of the Sky Lakes Wilderness are within four range allotments. The total grazing capacity for these four allotments (inside and outside of Wilderness) is 3,662 animal unit months (AUM's) during even years and 3,864 AUM's during odd years. The total Wilderness AUM's have not been computed.

The Wilderness portion of a fifth allotment, the Halifax Allotment located on the Prospect District, was deactivated prior to 1984. Although the Halifax Allotment originally supported sheep as early as 1870, the four remaining allotments presently support cow/calf operations. The four allotments are considered active, although the Big Meadows Allotment is currently vacant and is being considered for deactivation.

There is little evidence of commercial livestock damage in the Wilderness at this time, with the exception

of the King Spruce and Alta Lake Trail areas (located within the Imnaha Allotment). The Alta Lake Trail and King Spruce area continue to experience soil erosion and compaction due to cattle. In order to minimize cattle-related resource damage within the Blue Canyon and Seven Lakes Basins, drift fences, gates, and turnstyles have been erected at several key trailheads leading into the Wilderness.

In the pre-1984 portion of the Halifax Allotment there would be potential for conflict between recreational livestock use and commercial livestock operations in the McKie and Solace Meadows, located in the northern portion of Sky Lakes Wilderness. The recent change in the elk season has resulted in increased recreational livestock use in the Red Blanket, Solace, and McKie areas throughout the month of October. There is little evidence of past conflict in this area, however.

Allotment Name	Managing District	Total Acres (approx)	Wildness Acres (approx)	Operating Season	# of Months	Total # of Animals	Total # of AUMs	Current Status
Imnaha	Butte Falls	24,558	7,680	6/16-9/30	3.5	120	420	Active
Rancheria	Butte Falls	63,362	20,480	Even Year- 7/15-10/15 Odd Year- -6/1-10/15	3.0	418  1,881	1,254	Active
Fish Lake	Butte Falls	37,532	6,400	Even Year- 6/1-10/15 Odd Year -7/1-10/15	4.5	418  1,488	1,913	Active
Big Meadows	Klamath	6,250	1,600	7/15-10/1	2.5	30	75	Vacant
TOTALS:		131,702	36,160			993	3,662 3,864	(Even) (Odd)

\* AUMs computed for entire allotments, including Wilderness portions.